

South African Medical Journal

Organ of the Medical Association of South Africa



S.-A. Tydskrif vir Geneeskunde

Vakblad van die Mediese Vereniging van Suid-Afrika

Incorporating the South African Medical Record and the Medical Journal of South Africa

REGISTERED AT THE GENERAL POST OFFICE AS A NEWSPAPER

Vol. 25, No. 31

Cape Town, 4 August 1951

Weekly 2s

IN THIS ISSUE

Editorial : Van die Redaksie

Verslaafheid aan Verdoofmiddels

Original Articles

Drug Addiction

Still's Disease

Surgery in the Aged

Pott's Disease

Some Discrepancies in Disease Incidence Between the European and the South African Negro (Bantu)

Verenigingsnuus : Association News

Passing Events

Abstracts

Reviews of Books

The Benevolent Fund

In die Verbygaan

Correspondence

Support your Own Agency Department (P. xxx)

Ondersteun u Eie Agentskap-Adeling (Bl. xxx)

Professional Appointments (P. xxx)



.....maximum efficacy.....minimum risk

'SULPHATRIAD'^{brand}
compound sulphonamides

combines the bacteriostatic activities of three of the most potent sulphonamides, while risk of renal damage from crystalluria is greatly reduced.

Tablets Containers of 25, 100 and 500 x 0.5 gramme

Suspension Containers of 4 and 40 fl. oz.



MAY & BAKER LTD

distributors

MAYBAKER (SOUTH AFRICA) (PTY.) LTD. P.O. BOX 1130, PORT ELIZABETH
MA48655

COLLIRON

TRADE MARK



The main disadvantage with the majority of oral iron preparations is that they cause gastro-intestinal disturbance. It is thus often impossible to administer sufficient iron by the oral route fully to restore the haemoglobin level to normal. Colloidal ferric hydroxide in the form of Colliron overcomes this great disadvantage as the iron is present in a non-irritant form & is readily tolerated even in large dosage over a prolonged period.

OUTSTANDING ADVANTAGES OF COLLIRON INCLUDE:

- 1 *It is pleasant to take.*
- 2 *It very rarely causes gastro-intestinal disturbance.*
- 3 *The iron is present in a non-irritant form.*
- 4 *It is suitable for prolonged therapy even in young children or infants.*
- 5 *It does not stain the teeth.*

PACKAGES : Bottles of 8 fl. oz. and 80 fl. oz.

LITERATURE : On request from the Medical Information Department, Speke,
Liverpool 19, or 50 Bartholomew Close, London, ECI



Distributed in South Africa by:

EVANS MEDICAL SUPPLIES

SOLE PROPRIETORS: E. S. L. & W. (South Africa) (Pty.) Ltd., Johannesburg, Box 6607, Phone 33-1398
Cape Enquiry: Box 282, Cape Town Natal Enquiry: Box 1076, Durban.

South African Medical Journal

Suid-Afrikaanse Tydskrif vir Geneeskunde

Vol 25, No. 31

Cape Town, 4 August 1951

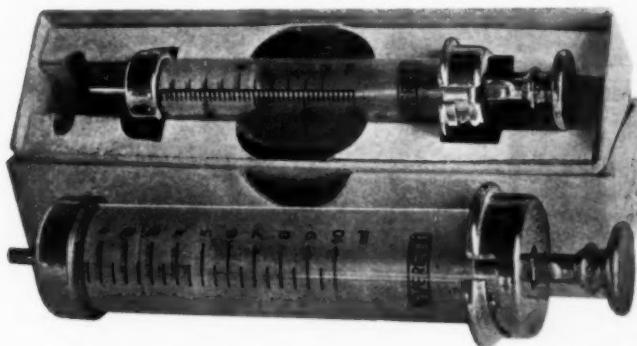
Weekly 2s

CONTENTS

| | | | |
|--|-----|--|-----|
| Still's Disease : Interim Report of a Case Treated with Cortisone. Dr. F. Walt, Dr. J. D. Raftery and Dr. P. A. Johnson | 541 | Verenigingsnuus : Association News: Natal Coastal Branch | 556 |
| Abstracts | 543 | The Benevolent Fund | 557 |
| Editorial: Drug Addiction | 544 | Passing Events | 558 |
| Van die Redaksie: Verslaafheid aan Verdoofmiddels | 544 | In die Verbygaan | 558 |
| Surgery in the Aged. Mr. T. Schrire, F.R.C.S. and Dr. I. Schrire | 545 | Reviews of Books: Lobotomy; Toxicology; King's Men; Lumbar Puncture and Spinal Analgesia; Dermatology and Syphilology 1950 | 559 |
| Pott's Disease (Concluded). Dr. C. J. Kaplan | 548 | Correspondence: Lipoma of the Neck (Dr. Alan B. Taylor); Medical Articles and the Lay Press (Dr. H. Rabinowitz) | 560 |
| Some Discrepancies in Disease Incidence Between the European and the South African Negro (Bantu). Mr. G. P. Charlewood, F.R.C.S. and Mr. R. Frylinck, F.R.C.S. | 551 | | |

THE NEW SYRINGE

EVERETT'S LAMINEX RECORD TYPE



The Pistons, having the same co-efficient expansion as the barrels, ensure the barest minimum of breakages.

Clearest graduations.

Glass barrels made to withstand temperatures up to 200 °C.

| 1c.c./20mm. | 2c.c./40mm. | 5c.c. | 10c.c. | 20c.c. | |
|-------------|-------------|-------|--------|--------|------------------|
| 6/6 | 7/6 | 10/6 | 12/6 | 14/6 | Central Nozzles. |
| — | — | 10/6 | 12/6 | 14/6 | Side .. |

GURR SURGICAL INSTRUMENTS (Pty.) Ltd.

Harley Chambers - Kruis Street - P.O. Box 1562 - Johannesburg

Centanaest Combined Anaesthetic Apparatus

The Centanaest Combined Anaesthetic Apparatus is designed for the administration of any of the following anaesthetics: Nitrous Oxide, Cyclopropane, Ether, Chloroform, Trilene and Oxygen by open, semi-open or closed circuit technique.

The Cabinet is attractively finished in green enamel, with all bright parts chrome-plated. Two drawers are provided for the storage of Accessories. The whole unit being mounted on four-inch castors.

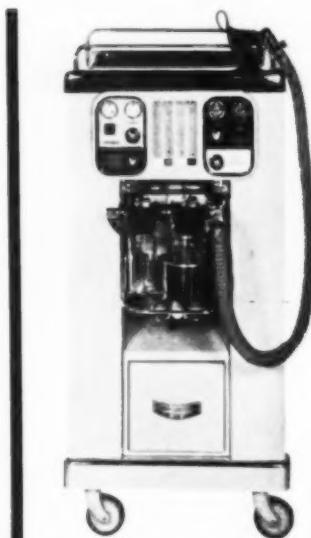
A feature of the Machine is the fact that prior to using the Carbon Dioxide Absorber, it is necessary to disconnect the Ether and Trilene Vapourisers thus preventing the accidental use of Trilene in a closed circuit with Carbon Dioxide absorption by Soda Lime.

A Coxeter-Mushin Mark II Carbon Dioxide Absorber is incorporated.

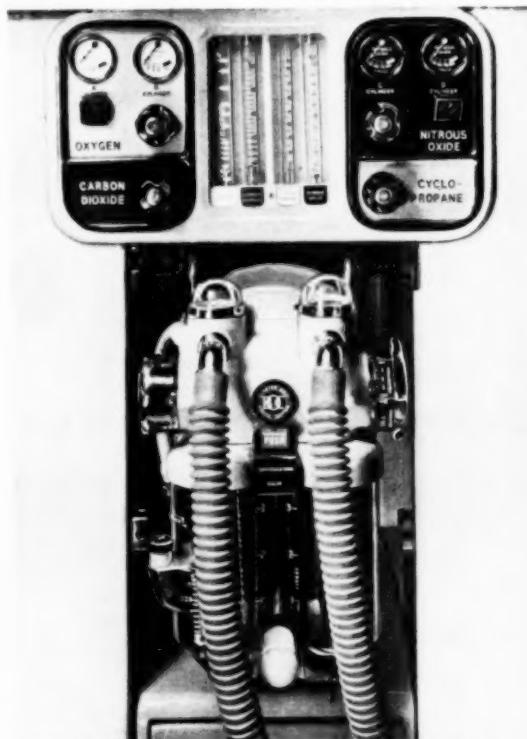
The Apparatus accommodates:

- 2 x 10 cubic feet Oxygen Cylinders;
- 2 x 200 gallons Nitrous Oxide Cylinders;
- 1 x 2-lb. or 4-lb. Carbon Dioxide Cylinders;
- and 1 x 25, 50 or 100 gallons Cyclopropane Cylinder.

These are accommodated in recesses on either side of the Machine and are connected by means of screw clamp yokes.



The Machine assembled for the administration of Nitrous Oxide, Ether, Chloroform or Trilene Oxygen combination by semi-closed method, the standard Magill Re-breathing Unit being used.



The control panel which incorporates a Coxeter Quadruple Rotameter Unit for accurate flow-rate measurement of the Gases. Flow control knobs for Oxygen, Carbon Dioxide, Nitrous Oxide and Cyclopropane are conveniently situated, and By-pass Buttons are provided for "flooding" Oxygen and Nitrous Oxide. Independent control gauges are provided for each Oxygen and Nitrous Oxide Cylinder.



AFRICAN OXYGEN & ACETYLENE (PTY.) LTD.

Division of The British Oxygen Co., Ltd.

MEDICAL DEPARTMENT

(Incorporating Coxeter & Son, Ltd., A. Charles King, Ltd.)

Barlow Street, Germiston, P.O. Box 207. Telephone 51-2551

Branches throughout the Union, Rhodesias, East Africa and South West Africa

*Are the Contents of Your
Consulting Rooms Adequately Insured
?*

IF SERIOUS DAMAGE TO THEM WOULD
REDUCE YOUR INCOME DURING THE
PERIOD OF REPLACEMENT, SHOULD YOU
INSURE AGAINST THIS FINANCIAL LOSS?



These are Questions on which your Official Insurers are
well qualified to advise you



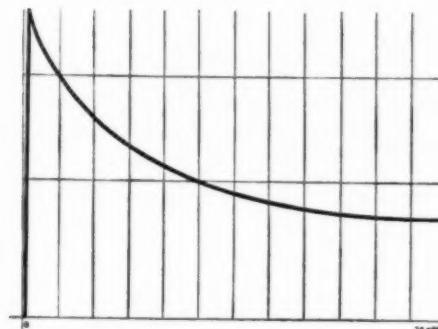
ATLAS
ASSURANCE COMPANY LTD.

*For high **initial**
and **sustained** blood levels . . .*

Crysticillin Fortified

Squibb Procaine Penicillin G for Aqueous Injection, 300,000 units,
with Buffered Penicillin G Potassium, 100,000 units

- * Easy to prepare and inject
- * Safe and painless
- * Very high initial blood level
- * Sustained action—effective level maintained around the clock with one injection per day



Vials of 400,000 units (1 dose)
2,000,000 units (5 doses).

CRYSTICILLIN is a REGISTERED TRADE-
MARK OF E. R. SQUIBB & SONS
© 1951

SQUIBB A LEADER IN PENICILLIN RESEARCH AND MANUFACTURE

Further Information and Literature is available from:

Protea Pharmaceuticals Limited

P.O. Box 7793

Johannesburg

Telephone 33-2211

RHEUMATISM ARTHRITIS

When MASSIVE Salicylate Therapy is indicated

The use of massive dosage of salicylates in the treatment of Rheumatoid Arthritis and other Arthritic and Rheumatic disturbances may now be recommended without the danger of toxicity.

The depression of blood prothrombin, and other unpleasant side effects where large and sustained doses of salicylates are required are inhibited by a scientifically balanced combination of calcium succinate and acetylsalicylic acid.

Succinate, a physiological respiratory catalyst as well as an accepted therapeutic agent in arthritic disorders, prevents the toxic effect of salicylate on the liver. Clinical tests have shown that where succinate-salicylate therapy is administered no fall in blood prothrombin occurs, even when doses of up to 120 grains of acetylsalicylic acid are required daily!

Succinate-salicylate therapy can now be applied conveniently through Dolcin tablets. Dolcin, prepared under rigid laboratory control, is a combination of calcium succinate and acetylsalicylic acid in a scientifically balanced formula which will maintain necessary high salicylate blood levels without danger of toxic reactions. It is available through pharmacists.

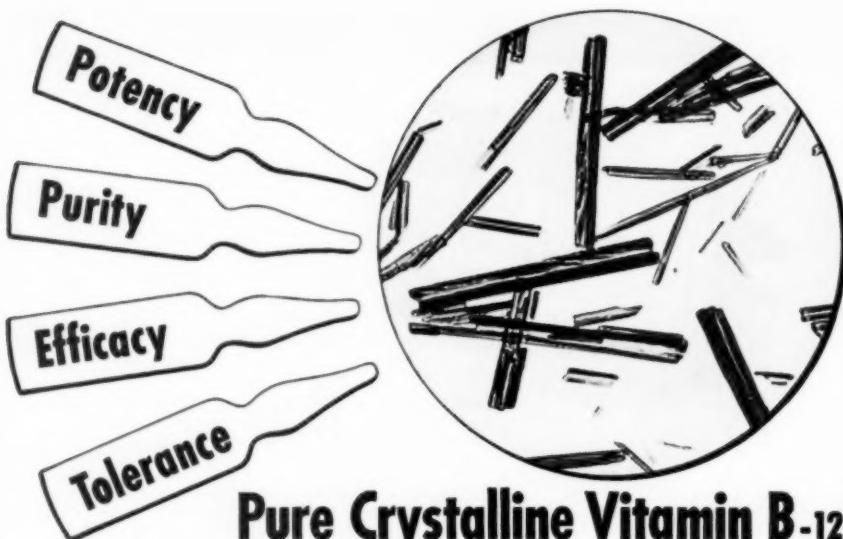
NOTE: Full documented evidence of the value of succinate-salicylate therapy in cases of rheumatoid arthritis, osteoarthritis, acute infectious arthritis, mixed arthritis, spondylitis and acute rheumatic polyarthritis will gladly be sent to any qualified medical practitioner on request.



DOLCIN

*ANALYSIS: Calcium succinate 2·8 grains per tablet.
Acetylsalicylic acid 3·7 grains per tablet.*

Associated Proprietary Agencies Limited, P.O. Box 4247, Johannesburg.



Pure Crystalline Vitamin B-12

PREFERRED BECAUSE potency, purity, and lack of toxicity of crystalline vitamin B-12 are clearly established.

Potency: Potency of this product is accurately determined by precise weight.

Purity: Pure anti-anemia factor.

Efficacy: Produces, in microgram dosage, maximum hematologic and neurologic effects.

Tolerance: Extremely well tolerated; "no evidence of sensitivity" has been reported.

Toxicity Studies: In recent pharmacologic investigations, extremely large doses of crystalline vitamin B-12 (1,600 mg./Kg.) caused no toxic reactions in any of the animals treated. In contrast, 3 mg./Kg. of a "concentrate" caused fatal reactions in 100 per cent of the animals treated.

The only form of this important vitamin official in the United States Pharmacopoeia

Free literature on request

Merck & Co., Inc.—first to isolate and produce vitamin B-12—supplies Crystalline Vitamin B-12 in saline solution in 1 cc. ampuls containing 15 micrograms of crystalline vitamin B-12.

Also available in bulk quantities.

MERCK (NORTH AMERICA) INC.

161 Avenue of the Americas, New York 13, N. Y., U. S. A.

EXPORT
SUBSIDIARY OF
MERCK & CO., INC.
Manufacturing
Chemists
Rahway, N. J., U. S. A.



No. 51-10 E

For the relief of pain and swelling in

Aching Joints
Sore Muscles
Mumps
'Rheumatic' Pains

Resolvent, analgesic, and non-staining, 'Iodex' cum Methyl Salicyl. has proved

**When the skin is broken
 'Iodex' plain is recommended;
 it is so bland that it can be
 applied without discomfort
 even to mucous surfaces.**

clinically effective in the relief of local pain and swelling. The penetrative power of 'Iodex' enables sites too tender to be massaged to be treated

effectively merely by a liberal application covered with gauze and a *light* bandage.

'Iodex' plain 'Iodex' cum methyl salicyl.

non-staining iodine ointment

**Issued
 in 1-oz.
 and 4-oz.
 jars**

*Samples
 on
 request*

MENLEY & JAMES (COL.), LTD., DIESEL STREET, PORT ELIZABETH
owners of the trade mark 'Iodex'



• ASTHMA
• BRONCHITIS
• EMPHYSEMA

are rapidly relieved by the

INHALATION
THERAPY



BRITAX HAND INHALER

Available with or
without a Face Mask

BRONCHOVYDRIN is a specially balanced Adrenaline technique obviating parenteral injections and free of any secondary effects, yet affording dramatic relief of all forms of bronchospasm, whether physical, nervous or allergic.

Available in cartoned bottles of 12.5 gm.

RIDDELL
Inhalers



SUPER PAG HAND INHALER

SUPER PAG is a large table model and can be supplied with single or double bulb, also with bakelite stand.

PNEUMOSTAT ELECTRIC INHALER is suitable for AC-DC of 90-110 volts or 200-250 volts, and is supplied complete with two SUPER PAG Inhalers either of which is brought into use by a two-way tap.



PNEUMOSTAT ELECTRIC INHALER

LONDON
W.I.

RIDDELL INHALERS deliver a fine degree of dry atomisation in the region of 20 microns, which is absorbed by the alveoli with extreme rapidity affording relief to an ASTHMA attack within the matter of seconds and yet is very easily administered by the patient without inconvenience.

Please write for technical data.

Sole
Manufacturers

RIDDELL PRODUCTS LIMITED

AXTELL HOUSE, WARWICK STREET

South African Representatives: FASSETT & JOHNSON LTD., 72 SMITH STREET, DURBAN. Phone: 2-9521

APONDON

for Safe weight reduction

Increase of
Metabolism

Weight
Reduction

Actions
of
Thyroid



These ill-effects
do not arise with
APONDON
by reason of its
unique composition

by pharmacologically *detoxified* Thyroid

BASE

Standardised THYROID, our choline derivative PACYL, pure ERGOT alkaloids. PACYL and ERGOT synergistically suppress the undesirable non-metabolic thyroid influence.

INDICATIONS

Obesity, myxoedema and allied endocrine dysfunctions.

During 2 years of observation Apondon was used in 60 cases of obesity resulting from endocrine disturbances, in some cases coupled with overfeeding. The results were most favourable, and showed the superiority of Apondon to ordinary thyroid preparations.

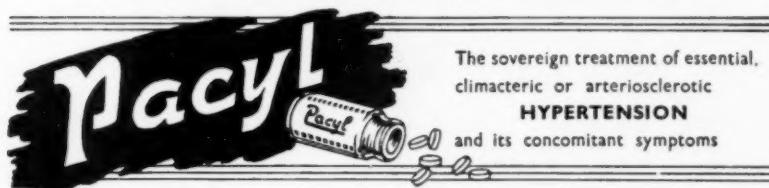
G. STOETTER, Med. Clin. 1936/30.

Supplied in bottles of 25 and 500 pills.

VERITAS DRUG COMPANY LIMITED
LONDON AND SHREWSBURY - ENGLAND

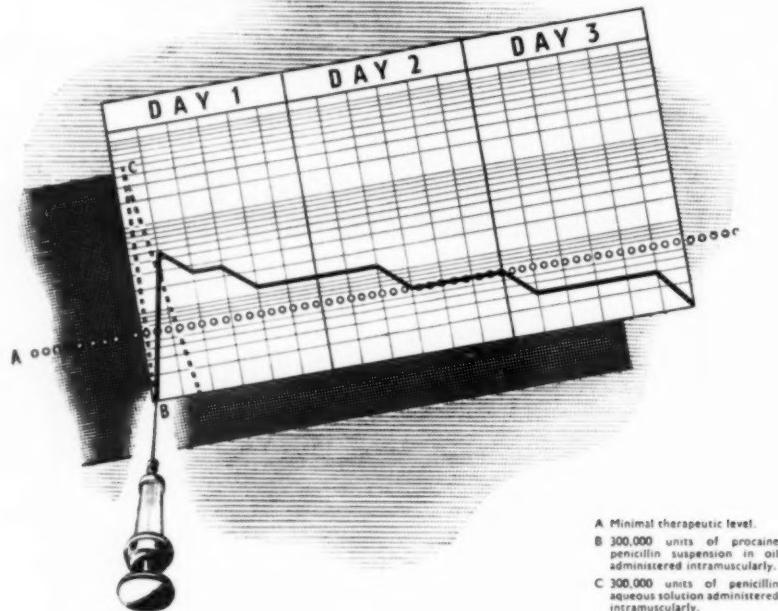
For further information and samples apply to our Distributors
in South Africa:

LENNON LIMITED - P.O. Box 8389 - JOHANNESBURG



PENICILLIN BLOOD LEVELS

sustained for 36/48 hours or longer



'Avloprocil' contains the procaine salt of Crystalline Penicillin G in oily suspension (300,000 units per m.g.) with aluminium stearate, and offers important advantages :—

- Therapeutic blood levels of penicillin maintained for at least 36-48 hours.
 - Effective penicillin therapy achieved with a single daily injection of 1 c.c.
 - Administration is free from irritation and pain.
- 10 c.c. vials (300,000 units of penicillin per c.c.) Singly and in boxes of 5.

'AVLOPROCIL'
IMPERIAL CHEMICAL (PHARMACEUTICALS) LIMITED
(A Subsidiary Company of Imperial Chemical Industries Limited)
MANCHESTER

Distributed by
I.C.I. South Africa (Pharmaceuticals) Limited

P.O. Box 7796, Johannesburg



South African Medical Journal

Suid-Afrikaanse Tydskrif vir Geneeskunde

Vol. 25, No. 31

Cape Town, 4 August 1951

Weekly 2s

STILL'S DISEASE

INTERIM REPORT OF A CASE TREATED WITH CORTISONE

FRANK WALT, M.R.C.S., L.R.C.P., D.C.H. (ENG.),

J. D. RAFTERY, F.R.C.S. (ENG.), D.PHIL. (OXON.), B.Sc.HONS. (RAND)

and

P. A. JOHNSON, M.B., CH.B.

Durban

Many cases of rheumatoid arthritis have been treated with Cortisone,^{1, 2} since Hench's first report,³ but few cases of Still's disease have been reported.

G. L., a female born on 23 December 1941, progressed well until the age of three years except for a mild infantile eczema. She then developed pain in the hip followed by swelling of the ankles and pain in the legs. Later the interphalangeal joints also became mildly swollen and subcutaneous nodules appeared at the elbows. A diagnosis of 'rheumatism of childhood' was made. During this period two attacks of asthma occurred and have continued to cause concern at different times.

The joint manifestations worsened slowly, with typical remissions and exacerbations. The child was able to get about with difficulty, yet managed to ride a tricycle so that she started school at the age of 5½ years. Lack of mobility and exacerbations of the disease frequently interrupted attendance and this was no better on entrance to a special school for cripples.

Various treatments consisted of salicylates, antibiotics, vaccine therapy and vitamin injections, but were of no avail.

At the age of five years the tonsils and adenoids were removed; at the age of seven she developed measles followed nine months later by tick bite fever.

There was no history of allergy or rheumatoid arthritis in the family.

In August 1950 the disease flared up once more and the patient continued to deteriorate, needing three to four 'Anadin' tablets a day. When the authors met in consultation on 18 October 1950, they found a thin, pale child lying painfully and helplessly in bed. The neck was held stiffly forward and the normal curves of the spine were replaced by one long C-curve convex posteriorly. There were flexion contractures of both wrists, the right being held flexed at 60°. The joints were swollen and tender to pressure; both active and passive movements caused much pain. She managed to feed herself but could not brush her hair, or move the neck from side to side. The knee joints were painful and swollen with limited movements, but the ankles looked normal. Difficulty in

opening the jaws had caused a loss in appetite. She had three decayed teeth. At the elbows three subcutaneous nodules were palpable and not tender. There was wasting of muscles in the forearms, hands and lower limbs, especially the right leg. The lymph glands were not enlarged. The heart was normal and the blood pressure was 116/72 mm. Hg. The tip of the spleen was palpable during deep inspiration. The nervous system was normal. The temperature was 99.6° F, the pulse 100 per minute and weight 43 lb.

A diagnosis of Still's disease was made and the patient was admitted to a nursing home for investigation and treatment.

Dr. McGinn (radiologist) reported as follows:

'Periarticular soft tissue swelling is evident in the case of the elbow and knee joints. Generalized diffuse decalcification is shown in all bones and joints examined. No pathology can be detected in the intervertebral or epiphyseal joints of the cervical dorsal or lumbar spine, or in the sacro-iliac shoulder or hip joints. Both wrists show rheumatoid arthritic changes with diffuse decalcification, narrowing of the intercarpal spaces, absorption of the joint cartilages and osteoporosis of the adjoining long bones.'

An anaesthetic was administered to discover the amount of spasm in the wrists and, although they relaxed considerably, there was still marked limitation of movements. Plaster-of-Paris splints were applied from the elbows to the metacarpo-phalangeal joints with the wrists in the optimum position of fixation. At the same time the carious teeth were removed.

The child was observed for 14 days before treatment. She was ill, apprehensive, timid and unable to do much for herself. She appealed constantly for attention to her mother, who waited upon her hand and foot. Her sleeping pulse averaged about 110 per minute and the temperature remained normal. By encouragement and coaxing she was able to get out of bed and stand with help and managed to hobble to a chair where she would sit for about an hour at a stretch; but she preferred to sit in bed with knees flexed, shoulders hunched and neck and back bent forward.

On 15 November 1950 Cortone acetate (Merck) was started by intramuscular injection (150 mg.) followed by

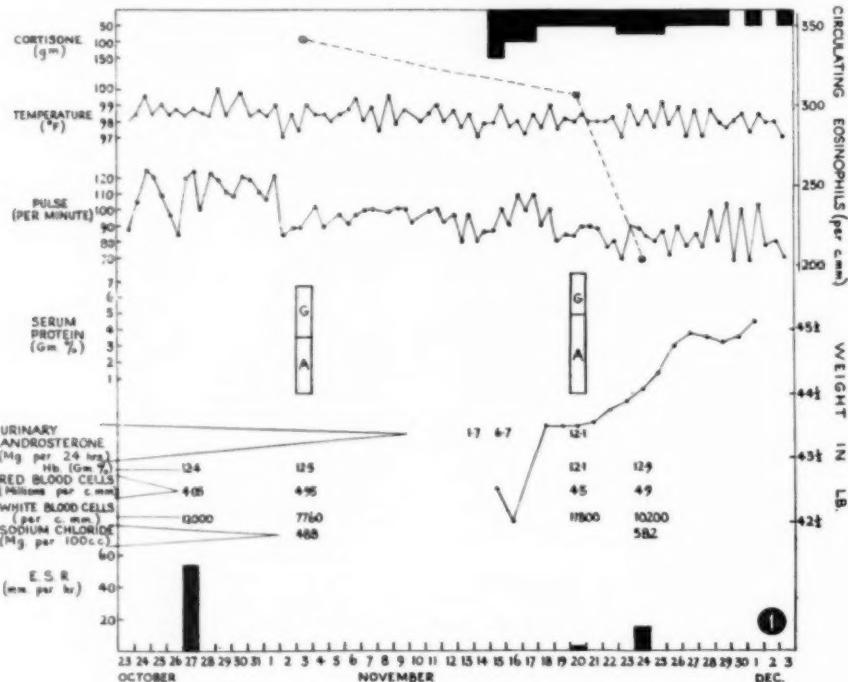
100 mg. for two days and then 50 mg. daily. On the ninth, tenth and eleventh days of treatment this was increased to 75 mg. daily in order to hasten recovery.

She complained of pain at the injection sites (buttocks), had insomnia and was restless on the fourth and fifth day of treatment. At this time it was obvious that she was better as the neck movements were much improved and she could straighten her back. Her face became fuller and the appetite improved remarkably, so that she was calling for second helpings and complained of always being hungry. She was encouraged to walk if possible, but refused because of the painful buttocks. On the eighth day, however, she suddenly decided she wanted to walk and did so fairly easily and said: 'I have a wonderful

night before starting treatment. There were no signs of toxicity due to the drug.

By the sixteenth day all the neck movements were full, there had been a gain in weight of 2 lb. 10 oz., the right thigh had increased by $\frac{1}{2}$ inch and the left by $\frac{1}{2}$ inch, the sleeping pulse which previously had averaged 106 was down to 76 per minute, the spleen was not palpable and the subcutaneous nodules could not be felt. It was therefore decided to give the injections on alternate days. Soon after this she was discharged home. On the twenty-first day she presented a bouquet at a public function.

Progress. While at home, over a period of two months the patient received 50 mg. injections three times a week (Mondays, Wednesdays and Fridays) except for a short



feeling. Mummy, as if a wind was blowing me along.' She was much happier, smiled more and was co-operative except when being injected. At this stage the plasters were removed. The wrists were still painful on free movements. The subcutaneous nodules had vanished. This improvement was maintained, the spleen was not palpable and by the fourteenth day she was able to ride her tricycle once more. She gained weight rapidly (Fig. 1) and soon developed a moon face. There were no subjective symptoms of tightness of the chest, although it is interesting to note that she complained of this the

period in December when supply of the drug was delayed and 25 mg. was given. After three of these smaller doses she became worse, her joints became a little painful, she walked with difficulty and lost a great deal of her euphoria.

On the higher dosage the improvement was maintained except for two exacerbations. The first relapse consisted of pain in the left shoulder and right wrist joints with limitation of movements. The temperature fluctuated between 99° and 101° F. The E.S.R. was 56 mm. per hour and the white cell count 9,000 per c.mm. with an

eosinophilia of 8%. The dosage was increased to 75 mg. daily for three days with an immediate response—disappearance of pain and return to a normal temperature. Thereafter she continued to remain well on 50 mg. three times a week, kept bright and happy and read voraciously. Her appetite was most hearty and she played normally; her walk was somewhat hindered by a little stiffness of the legs and feet but she was able to use her tricycle. She could feed herself but needed some help with bathing and dressing, as the wrist joints still had a fair degree of limitation. A moon face became a prominent and striking feature. Despite varied protestations of pain following the injection she has steadfastly refused to take Cortisone by mouth because of its taste.

The second relapse occurred a month after the first. It began with a swollen right knee and a temperature of 100° F and was followed next day by nausea, vomiting, dyspnoea and a mild collapse. The temperature rose to 102° F, the heart became markedly enlarged, a pericardial rub was heard and the blood pressure fell to 90/60 mm. Hg. The pulse rate was 120 per minute and she became very ill with acute pericarditis. Cortone dosage was increased to 100 mg. daily for five days together with Disprin gr. 15 three times a day and a salt-free diet. The response was once more dramatic. The temperature became normal in 24 hours, the heart size diminished rapidly, the pulse settled and within two days the child was once more bright and happy. The pericardial rub soon vanished.

After five days of Cortisone she became oedematous and was obviously retaining fluid. Blood examination showed: HB 13.7 gm.%; leucocytes 13,900 per c.mm.; polymorphonuclears 69.8%; lymphocytes 25.2%; monocytes 0.8%; myelocytes 3.6%; metamyelocytes 0.6%; serum protein 6.1 gm.%; albumin-globulin ratio 2.2:1.0; sedimentation rate (Westergren) 3 mm. per hour; circulating eosinophils, nil.

It was decided to stop the Cortone and re-introduce it only when symptoms of pain began again.

Investigations. These are shown in Fig. 1 together with temperature, pulse and weight recordings. Some estimations were not repeated as often as was desirable because the patient was unco-operative. The gamma globulin had fallen from 1.6% to 1.2% by the tenth day of treatment.

DISCUSSION

In a disease in which remissions occur, improvement must be assessed objectively. The response in this case was

very good, but not as dramatic as in others described by Boland and Headley¹ and Hench and others.² It is possible that the pain at the injection sites prevented activity and movement in a child confined to bed for a long time and apprehensive of a treatment that caused her pain. She certainly did not show any dramatic change in the first three days, but thereafter the response was obvious. Another reason may have been low initial dosage (in order to conserve the supply of the drug).

Carlisle³ has stated that the dosage in children is still unsettled but may approximate that used in adults before a good result is obtained. For this reason the dosage was increased on the ninth day of treatment for three days, in an attempt to hurry along the remarkable recovery.

While intermittent therapy sustained the improvement, it did not prevent relapses nor did it prevent the onset of pericarditis. This, of course, was very disappointing, despite the fact that increased dosage controlled the relapses well. It may be that larger dosages at longer intervals may be a better course of treatment and this is what is contemplated in future. In this case Cortisone has proved to be a purely symptomatic form of treatment.

SUMMARY

1. A case of Still's disease treated with Cortisone is reported.
2. The response was very good and transformed an ill, bedridden child into a happy, mobile little girl.
3. Cure has not been effected; only temporary symptomatic relief.
4. Relapses have occurred during intermittent therapy, but have been controlled by an increase in dosage.
5. Treatment did not prevent the onset of pericarditis.
6. The investigations, treatment and response are reported in a chart.

Our grateful thanks are due to Dr. G. A. Drummond, Biochemist, Central Pathological Laboratory, Durban, for his co-operation and help in performing the special laboratory investigations.

REFERENCES

1. Boland, E. W. and Headley, N. E. (1948): J. Amer. Med. Assoc., **141**, 301.
2. Hench, P. S., Kendall, E. C., Slocumb, C. H. and Polley, H. F. (1950): Arch. Int. Med., **85**, 545.
3. Hench, P. S., Kendall, E. C., Slocumb, C. H. and Polley, H. F. (1949): Proc. Staff. Meet. Mayo Clin., **24**, 181.
4. Carlisle, J. M. (1950): Brit. Med. J., **2**, 590.

ABSTRACTS

Podophyllin in the Treatment of Eczema. (Résultats du Traitement de l'Eczéma par le Podophyllin). Vilanova, X., Cardenal, C. and Pou, A. (1950): Annales de Dermatologie et de Syphiligraphie, **10**, 374.

A résumé of experimental, clinical and histological research. Podophyllin has a remarkable drying effect on the epithelium. Podophyllin resin, which is variable in quality, can be advantageously replaced by crystalline podophyllin toxin, one of its constituents. Podophyllin has a local irritant action but is seldom a sensitizer.

Treatment of 116 patients with 1% podophyllin resin (alone or with 5% coal tar) or with 1:5,000 podophyllin toxin (alone or with coal tar) caused rapid drying of lesions, decongestion and diminution of spongiosis.

The Use of Benadryl in the Prevention of Reactions to BAL. Howard L. Holley (1950): Amer. J. Syph. Gon. Vener. Dis., **34**, 490.

British Anti-Lewisite is the accepted antidote in cases of poisoning by arsenicals. It is itself toxic when used in doses of more than 3 mg. per kilogram of body weight, the usual symptoms being excessive lacrimation, abdominal cramps, nausea, vomiting, flushing of the face and other vasomotor disturbances.

The author found that 50 mg. of Benadryl given 30 minutes before an injection of BAL prevented reactions in cases in which they occurred. The antihistamine did not interfere with the concentration of arsenic in the urine or its elimination.

South African Medical Journal

Suid-Afrikaanse Tydskrif vir Geneeskunde

EDITORIAL

DRUG ADDICTION

The Expert Committee on Drugs Liable to Produce Addiction, W.H.O., has formulated the following definition for addiction-producing drugs:

Drug addiction is a state of periodic or chronic intoxication, detrimental to the individual and to society, produced by the repeated consumption of a drug (natural or synthetic). Its characteristics include:

1. An overpowering desire or need (compulsion) to continue the drug and to obtain it by any means;
2. A tendency to increase the dose;
3. A psychic (psychological) and sometimes a physical dependence on the effects of the drug.¹

The physical dependence is characterized by a change in certain normal functions which necessitates continuous administration of the drug.

The emphasis of the definition is on the loss of self-control and harm to the individual and to society. Addiction-producing drugs are opium and its derivatives, Pethidine, Amidone, Cocaine, Cannabis (dagga), barbiturates, alcohol.

During addiction the cellular functions of the victim demand the presence of the drug. There is no certain proof that true addiction can be stopped voluntarily, as with the tobacco habit; withdrawal without medical aid must be rare. One proof of addiction is the syndrome of abstinence, consisting of psychical and physical manifestations.

It is necessary to distinguish between habit and true addiction. The above-mentioned Committee has defined habit, as applied to drugs, as follows:

A habit-forming drug is one which is or may be taken repeatedly without the production of all the characteristics outlined in the definition of addiction and which is not generally considered to be detrimental to the individual and to society.

This definition includes drugs such as tobacco, coffee, tea. The term habit-forming in the sense of addiction-producing should be avoided. It is hoped that the above definitions will be accepted and used by all dealing scientifically with these problems.

The drugs liable to produce addiction will create addiction in all persons taking them long enough in sufficiently big doses. The time necessary for addiction to develop and the degree of addiction depend on the personality of the subject. Great care is required with newly advertised analgesic drugs, as addiction has occurred because the patient or the physician believed the information initially published about the drug. In one case a whole

VAN DIE REDAKSIE

VERSLAAFDHEID AAN VERDOOFMIDDELS

Die Wetenskundige Komitee oor Verdoofmiddels wat Moontlik Verslaafheid veroorsaak (Wêreld-Gesondheidsorganisasie), het die volgende omskrywing daarvan geformuleer:

Verslaafheid aan verdoofmiddels is 'n toestand van periodiese of kroniese bedwelming, wat vir die individu en die maatskappy skadelik is en veroorsaak word deur herhaalde gebruik van 'n verdoofmiddel (natuurlike of sintetiese). Sy eienskappe sluit in:

1. 'n Oorweldigende begeerte of behoefte (drang) om met die gebruik van die verdovingsmiddel voort te gaan en dit teen elke prys te verkry;

2. 'n Neiging om die dosis te vergroot;

3. 'n Psigiese (sielkundige) en soms 'n fisiese afhanklikheid van die uitwerking van die verdoofmiddel.¹

Die fisiese afhanklikheid word gekenmerk deur 'n verandering in sekere normale funksies wat volgehoue toediening van die verdovingsmiddel noodsak.

Die omskrywing lê klem op die verlies van selfbeheer en die skadelikheid vir die individu en teenoor die maatskappy. Verdovingverooraksende middels is opium en sy derivate, Pethidine, Amidone, Kokaien, Cannabis (dagga), barbiturate, alkohol.

Gedurende die verslaafheidstydperk vereis die slagoffer se selfunksies die teenwoordigheid van die verdoofmiddel. Daar is geen seker bewys dat ware verslaafheid willekeurig beëindig kan word nie, soos in die geval van die gebruik van tabak; wegvatting, sonder mediese behandeling, kom seker selde voor. Een bewys van verslaafheid is die onthoudingsindroom bestaande uit psigiese en fisiese openbaringsvorms.

Dit is nodig te onderskei tussen gewoonte en ware verslaafheid. Die bovenoemde Komitee het gewoonte, soos toepaslik op verdoofmiddels, as volg omskryf:

'n Gewoontevormende verdoofmiddel, is een wat herhaalde gebruik word, of herhaaldelik gebruik kan word sonder dat al die eienskappe veroorsaak word wat in die omskrywing van verslaafheid aangedui is en wat algemeen nie as skadelik beskou word vir die individu en die gemeenskap nie.

Hierdie omskrywing sluit verdoofmiddels soos tabak, koffie en tee in. Die uitdrukking gewoontevormend, in die sin van verslawend, moet vermy word. Hopelik sal bestaande omskrywings aanvaar en gebruik word deur almal wat met hierdie probleme wetenskaplik te doen kry.

Die verdoofmiddels wat moontlik verslaafheid veroorsaak, sal alle persone verslaaf, as dit lank en in dosisse groot genoeg, geneem word. Die tyd wat nodig is om verslaaf te word en diegraad van die verslaafheid, hang af van die persoonlikheid van die individu. Groot sorg word vereis in die geval van pas geadverteerde pynstillende middels, aangesien verslaafheid voorgekom het omdat die pasiënt, of die geneesheer, die infliting geglo het wat aanvanklik gepubliseer is oor die verdoofmiddel. In een geval het 'n hele gesin blybaar aan Amidone (Metadol, Fisepthon) verslaaf geraak. In baie lande, insluitende die V.S.A., is die vervaardiging en verkoop van diasetiel-

1. United Nations Bulletin on Narcotics, October 1950.

1. United Nations Bulletin on Narcotics, Oktober 1950.

Emergency Medicine Depots-

**YOUR ATTENTION IS
DRAWN TO THE
FOLLOWING HOURS
OF ATTENDANCE AT
THE DEPOTS**



If you practise in Johannesburg and the Reef, tear out this page and keep it handy! At all the depots urgent medicines can be obtained and prescriptions dispensed without the slightest delay.

AFRICA HOUSE, Rissik Street, Phone: 22-0616
Weekdays: 6 p.m.—8 a.m.

Week-end: Saturday, 2 p.m.—Monday, 8 a.m.

SUNDAYS AND HOLIDAYS—OPEN DAY AND NIGHT

HOURS OF ATTENDANCE AT BRANCHES
Weekdays: 6 p.m.—11 p.m.
Saturdays: 2 p.m.—11 p.m.

SUNDAYS AND PUBLIC HOLIDAYS
8 a.m.—11 p.m.

ORANGE GROVE: 205 Louis Botha Avenue
Phone: 45-1214

ROSETTENVILLE: 193 Albert Street
Phone: 32-5209

BRIXTON: 95 High Street
Phone: 35-3195

DOORNFONTEIN: 36 Bilt Street
Phone: 44-3243

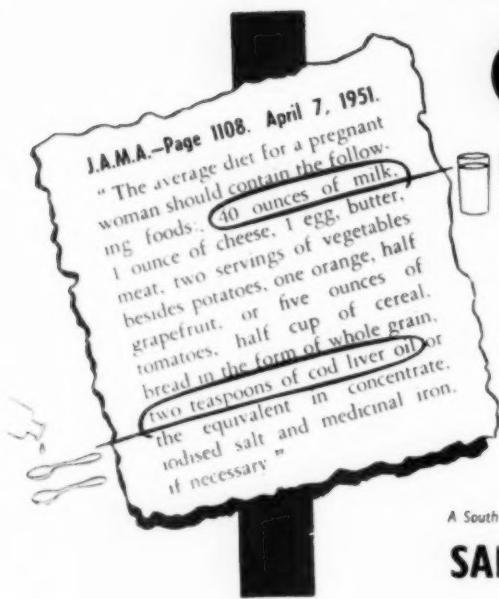
MALVERN: 583 Jules Street
Phone: 25-7228

GERMISTON: 127 Meyer Street
Phone: 51-3095

These depots are sponsored by:

THE PHARMACEUTICAL SOCIETY OF SOUTH AFRICA
(Southern Transvaal Branch)

(ADVERTISEMENT SPONSORED BY B.P.D. (S.A.) (PTY.) LTD.)



CALLIDEX TABLETS

containing:

Dicalcium phosphate
Ferrous sulphate
"B" Group Vitamins
and Vitamin "D"
Contains the Vitamins
and minerals necessary
during pregnancy and
lactation.



SAPHAR

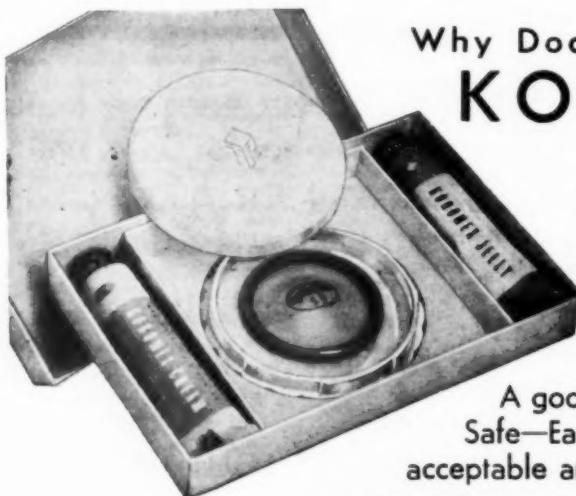


A South African Product prepared by

SAPHAR LABORATORIES LTD.

P.O. Box 255, Johannesburg

P.O. Box 568, Cape Town P.O. Box 2383, Durban P.O. Box 789, Port Elizabeth



Why Doctors recommend **KOROMEX**

- New Plastic Sanitary Pack
- Sample tube of KOROMEX JELLY
- Sample tube of KOROMEX CREAM
- The same high quality
- The same price

Koromex Diaphragms used together with Koromex Jelly or Koromex Cream achieve the almost perfect contraceptive.

A good contraceptive must be
Safe—Easy to use—Aesthetically
acceptable and harmless.

All these qualities are found in Koromex products

VULCO

P.O. Box 3754

CHEMICAL COMPANY, LTD.,

Johannesburg

family apparently became addicted to Amidone (Methadone, Phynepone). In many countries, including the U.S.A., the manufacture and the sale of diacetylmorphine (heroin) are forbidden because of the great risk of addiction to this substance, the most dangerous of the morphine derivatives generally available. The prolonged use of Pethidine may lead to addiction; withdrawal symptoms resemble those of morphine but are milder. Barbiturates can produce addiction, and withdrawal produces a severe reaction.² Withdrawal should be carried out slowly and cautiously over a period of three to four weeks, and under close observation. Some aspects of the gravity of the Cannabis (dagga) problem were dealt with recently.³ An interesting fact is that approximately 46,615 kg. of dagga were confiscated in South Africa during 1948; and 12,345 kg. in 1946. This represents the largest confiscation of a single drug reported to the United Nations by any Government.⁴

In the treatment of drug addiction Amidone is being much used. This analgesic drug creates less severe and more slowly developing abstinence symptoms than morphine, so that nowadays morphine is first replaced by Amidone and then the latter is dispensed with in the ordinary way, reducing the dose and withdrawing the drug over a period of time. Amidone 1 mg. is administered for 4 mg. of morphine, gradually reduced to 1 mg. Amidone for 12 mg. of morphine. During the first day of treatment the patient should be given a mixture of the two drugs, every six hours. Similarly 1 mg. Amidone may be substituted for 2 mg. heroin, for 1 mg. dihydromorphone, or for 20-30 mg. Pethidine or Codeine. The Amidone should be given orally, and injections avoided, otherwise 'needle addiction' may develop. Firm handling of the patient with assurance and strong suggestion may be required, and a long period of rehabilitative and psychiatric therapy.

2. This Journal, p. 956, 18 November 1950.

3. This Journal, p. 284, 28 April 1951.

4. United Nations Bulletin on Narcotics, January 1951.

morfien (heroïen) verbode, weens die groot risiko op verslaafheid aan hierdie stof, wat die gevarelikste een is van al die morfienderivate algemeen beskikbaar. Die langdurige gebruik van Pethidine kan tot verslaafheid lei: wegvattingssymptome kom ooreen met dié van morfien, maar is van liggere aard. Barbiturate kan verslaafheid veroorsaak en wegvatting veroorsaak 'n kwaai reaksie.² Die wegnamme moet geleidelik en versigtiglik onder strenge waarneming geskied oor 'n tydperk van drie of vier weke. Sommige aspekte van die ernstigheid van die Cannabis-(dagga)-probleem is onlangs behandel.³ 'n Interessante feit is dat daar in Suid-Afrika gedurende 1948 beslag gelê is op ongeveer 46,615 kg. dagga en in 1946 op 12,345 kg. Dit maak die grootste beslaglegging uit wat op 'n enkele verdowingsmiddel gedoen is deur enige Regering en by die verenigde Volke aangemeld is.⁴

Amidoon word baie gebruik by die behandeling van verslaafheid aan verdowingsmiddels. Hierdie pyntstillende middel veroorsaak minder ernstige en stadiger ontwikkelende wegvattingssymptome as morfien, sodat morfien desdae eerste deur Amidoon vervang word, terwyl laasgenoemde weer op die gewone wyse uitgeskakel word by wyse van verminderende dosisse en eindelike ontrekking van die verdowingsmiddel oor 'n tydperk. 1 mg. Amidoon word toegedien en dit vervang 4 mg. morfien en word geleidelik verminder tot 1 mg. Amidoon vir 12 mg. morfien. Op die eerste dag van behandeling moet die pasiënt sesuurlik 'n mengsel van die twee verdoofmiddels ontvang. 1 mg. Amidoon kan netso ook 2 mg. heroïen, of 1 mg. dihidromorfinoon, of 20-30 mg. Pethidine, of Codeien vervang. Die Amidoon moet per mond toegedien word met vermyding van inspuittings anders kan 'naaldverslaafheid' ontwikkel. Ferme behandeling van die pasiënt mag nodig wees in volle vertroue, asook kragtige suggestie en 'n lang tydperk van rehabiliterende en psigiatrysche behandeling.

2. Hierdie Tydskrif, bl. 956, 18 November 1950.

3. Hierdie Tydskrif, bl. 284, 28 April 1951.

4. United Nations Bulletin on Narcotics, Januarie 1951.

SURGERY IN THE AGED

T. SCHRIRE, F.R.C.S.

and

I. SCHRIRE, M.R.C.P.

Cape Town

An elderly patient is not different in any essential way from other patients, and it is not as yet necessary to consult a Geriatrician before attempting surgery. Nevertheless, certain precautions are advisable and it is not an exaggeration to state that unless one is aware of the set of circumstances associated with surgery in the aged, the results may not only be unsatisfactory but may well prove to be disastrous. The average patient of advanced years may not turn a hair and will withstand successfully any trauma. The majority require special attention and it is wise to look upon all old patients as potential trouble-

makers, so that the advent of complications does not come as a surprise.

THE PRE-OPERATIVE STAGE

This should be used to the best advantage. In emergencies there may be no time at all to investigate the patient before operation, but one should be prepared to deal with any complications that may arise. When there is time to spare, a complete and thorough examination, and not just a cursory look-around, is essential. So very often the aged have not had the good fortune to have had a

life completely free from illness, and there is often more than one pathological condition present. It is important to know the state of health before embarking on major surgery. A good clinical examination should be accompanied by an ECG as patients with apparently normal cardio-vascular systems may be shown to have clear signs of heart strain. Routine radiology is unnecessary and is indicated only when there is evidence of disease, or in doubtful cases. Certain conditions deserve special mention.

Diabetes mellitus may often be found at pre-operative examination for the first time, or the condition may already have been recognized. Most elderly patients are reasonably controlled on diet alone, but some, of course, have to be maintained on insulin injections. It is advisable to send the patient to operation controlled. Within a few days, even the most severe diabetics will be ready if treated adequately, and provided that they are controlled satisfactorily they may be operated on without the necessity of giving insulin and glucose immediately before or during an average operation, unless the operation happens to be a lengthy one.

Control is readily obtained after operation in most cases and it makes the task of the surgeon and the anaesthetist simpler if they do not have to worry about the quantities of glucose to be given during a major operation. A catheter left in the bladder will make the sampling and testing of urine simple, and a complete knowledge of the urinary state is available all the time without the need for repeated blood sugar investigations. The catheter should be removed before the patient has recovered consciousness. Control must be made with ordinary soluble insulin; if the patient has been taking protamine zinc insulin, he should be changed to the ordinary type, and balanced anew.

Some patients have had an attack of *coronary thrombosis*, often unbeknown both to the patient and to his doctor, and the ECG should in most cases show this. Hypertensive heart disease is very common in this age group, and these cardiac abnormalities are a potential strain on the patient. It is obvious that some patients may not be fit for any sort of operation, but as all surgery in this group must be *essential*, one may find it necessary to operate even though all signs point to trouble.

In these life-saving operations risks must be taken, and it is in these cases that it is extremely gratifying to have a successful outcome in the face of apparently overwhelming odds. Auricular fibrillation can be controlled; congestive heart failure can be ameliorated. The intelligent use of drugs may make available for life-saving surgery a patient in a reasonable state of health, even though the risks are still grave. There is on occasion no choice except to operate, and the physician can often convert a poor risk into a reasonable one.

The cardinal principle of pre-operative treatment is to aim at producing for the surgeon a patient in as good a state as is possible, considering all the relevant features. Provided all that can be done has been done, then all that follows can be assessed on the basis of calculated risks, well knowing that all surgery in the aged entails a greater risk than usual.

Patients are sometimes dehydrated before operation, and this can be treated by giving fluid by mouth without having

to give it intravenously. If the intravenous route is indicated, then all precautions against overloading the circulation must be taken. Many old patients are wrinkled. Wrinkles alone are not a sign of dehydration, and it is wrong to fill the patient with fluid because the skin can be lifted up easily. The state of the tongue is a good index of a satisfactory fluid state of the body. In old age the skin loses its elasticity and a loose wrinkled skin is physiological.

The state of the blood should be known. Old people do not as a rule have 100% haemoglobin and five million red cells per c.mm. A haemoglobin of about 80% is not abnormal, but if it is necessary to administer blood pre-operatively, it should be given slowly and with discretion. It is far better to give the blood at this stage than to build up the blood volume after operation. If there is time, iron by mouth or intravenously is better still and, in general, intravenous infusions are best avoided.

Diet before the operation is important. The aged do not like or take kindly to sudden changes in their diet. It is wise to alter the diet as little as possible, not only because of disturbing the state of mind of the patient but also because the gastro-intestinal tract at that age does not react well to alterations in the type of food ingested.

The bowels and their movements are a constant source of interest to the aged and any change in either direction may create havoc in the economy of the patient. To maintain the *status quo ante* is the aim, but if constipation is persistent, a daily enema for two or three days before the operation will be all that is necessary.

THE OPERATION

Anything which reduces the time of the operation is of value altogether out of proportion to the time saved. Operations should be made with a view to doing the minimal amount of work compatible with the purpose and scope of what is required. Many surgeons have different ways of saving time and this will depend upon the individual surgeon. Rough handling of the tissues should be avoided and long incisions are rewarding.

The practice of administering a drip transfusion of blood throughout the operation is a good one, and it is often a time-saving practice to have the assistant set up the drip while the patient is being anaesthetized.

The modern anaesthetist has eliminated many risks from surgery, and the choice of the anaesthetic can safely be left to him. The longer the patient is anaesthetized the worse the eventual outcome may be, and it appears that up to about two hours is the critical time. After this complications and troubles abound.

Transfusions during the operation must be controlled rigidly. The rate of flow of the drip should be slow, and about 15 to 20 drops a minute is adequate. In the event of blood loss or a fall of blood pressure, the rate of flow can be accelerated; but as soon as the loss has been made up, or the blood pressure returns to a higher level, the rate of flow must be retarded. Overloading the circulation should be avoided at all costs.

When the operation is over, it is advisable to keep the patient on the theatre table until he has recovered consciousness. If the patient must be moved, it is better to move him on the table, and he should not be rolled over and disturbed. It is better to delay changing the

position of the patient as long as possible, and the change from a Trendelenburg position to the prone should be done slowly. There is ample evidence that sudden changes in position after a long operation alter the state of the circulation with bad results. Nevertheless, as soon as possible, the patient should be returned to his bed and placed in the semi-sitting position.

POST-OPERATIVE PERIOD

Position in Bed. The return of blood to the heart determines the cardiac output. The cardiac output is about 20% more in the supine than in the sitting position, and when one calculates the work the heart performs, it is clear that the burden on the heart is increased the longer the patient is lying flat. In young and healthy people this alteration in the work of the heart is not so important. In the elderly the margin of competence is narrow, so that after a varying length of time the heart may falter. As soon as is convenient the patient should be sat up in bed at an angle of about 45°, and made as comfortable as possible. Some may complain that this position is not comfortable, but when the choice lies between left heart failure and temporary comfort, there cannot be much hesitation in deciding. Whether the patient has had heart disease in the past or not, and whether the patient is having a transfusion or not, this position should be maintained. The aged patient after a major operation is always in danger of developing heart failure, and this postural treatment is possibly as important as the use of any drug in the pharmacopoeia.

Transfusions. Almost all patients are returned to the wards with a drip transfusion of blood or glucose-saline in position. There is no doubt at all that transfusions have been the cause of death of many a patient. Only too often does one hear that the patient has come through the operation successfully, and a day or so later has collapsed suddenly and died. It is uncommon for the doctor to reach the patient in time, and he is given a report by the nurse that the patient died suddenly. The diagnosis is presumed to have been an acute pulmonary embolus or a myocardial infarction, and the drip is dismantled, sterilized and prepared for the next patient.

If one has the experience of seeing these patients passing into acute left heart failure and has treated them, it becomes immediately apparent that many of the sudden deaths in the post-operative stage are due to circulatory overloading. Careful attention to the rate of flow is required, and it is safer to give a very slow drip in replenishing the blood volume to the elderly. The treatment in the first place is to be aware of the dangers, and constant supervision of the patient, the venous jugular pressure and the lungs is essential. Any increased breathlessness is a danger sign, and when the practitioner is in doubt the drip should be stopped. If left heart failure develops the drip should be discontinued: morphine gr. 1/6 should be injected intravenously; Theophylline-ethylene-diamine 0.5 gm. should be injected intravenously; and the patient should be digitalized intravenously with digoxin. Oxygen by a B.L.B. mask should be administered continuously. It may be necessary to perform a venesection, though this is seldom necessary if treatment is begun in time.

On occasions treatment is unsuccessful, particularly in

those who have cardiac disease. If the patient recovers from this acute complication it may be necessary to give more blood. This can be done by giving small quantities, about 200 c.c. daily or every second day, very slowly. Packed cells may be given, and with patience the patient will be helped through this very difficult stage.

Acute Pulmonary Embolism and Coronary Thrombosis. Any factor which lowers the blood pressure in patients with coronary vessel disease may precipitate an attack of coronary thrombosis. In the aged who have lost blood and in whom the blood pressure has fallen to a lower level post-operatively, there is always this danger. When an attack is associated with pectoral pain, the diagnosis is usually considered and one looks for changes in the ECG. However, in the absence of pain and if the patient does not look well and feels faint and weak and makes little progress, a silent coronary thrombosis should be considered. It may be very difficult to differentiate between coronary thrombosis and an acute pulmonary embolus, but if the patient survives, the ECG is diagnostic. It must be remembered that the electrocardiographic changes in acute pulmonary embolism are not always characteristic, and in any case may be fleeting. The sooner an ECG is done after any post-operative incident which is not easily explained, the sooner a diagnosis of pulmonary embolus can be made and appropriate treatment commenced.

The treatment of coronary thrombosis is the same at any age. The decision to use anticoagulants may be difficult, and on the whole the anticoagulants should be used in those cases where there is an extension of the infarction as judged by recurrence of pain and ECG changes. In pulmonary embolism it is wise to institute anticoagulant treatment at once. An initial intravenous injection of 10,000 units of Heparin is made, and Tromexan or Dicoumarol is given by mouth. The blood prothrombin concentration must be controlled daily by the biochemist, and the patient must be kept under control for two weeks at least until he is up. In coronary thrombosis the anticoagulants must be given for at least four weeks.

Diet after Operation. As soon as convenient food should be given by mouth, and this also applies to fluids. Fluids by mouth should be given as soon as borborygmi are heard, and the best place to listen for these is in the right iliac fossa. Solids should be given when the patient passes flatus. There is no need to be anxious if feeding with protein hydrolysates must be continued intravenously for a few days, but the sooner intravenous therapy is stopped the better. The salt intake is often important and a check on the urine sodium chloride output is easily performed. Beef extracts and teas will allow quite large quantities of sodium chloride to be given in a palatable form, and patients usually have faith in these otherwise useless preparations.

The Bladder and the Bowels. Aged people are often very interested in their stools and urine. In the early post-operative stages, if urine is not voided a catheter should be passed and left *in situ* for about six hours. After this, micturition is usually resumed without difficulty if there is no prostatic disease. Enemas are useful after a day or so, as the patient feels better for these evacuations. There is usually trouble in keeping the bowels open regularly. It must not be forgotten that most of these

patients had bowel irregularity before the operation and for reasons totally unrelated to those for which they were operated on. It cannot be expected that irregular bowel habits will become normal. All sorts of measures will have to be tried before some satisfactory routine is achieved. It is surprising how often a relatively mild aperient like senna pods will prove a great success after all else has been only partly successful.

Where enemas are for any reason contra-indicated, one or two glycerine suppositories can be given with good results.

Early Ambulation. The sooner the patient is up the better. Old people understand this and are eager to get up; they feel that if they take to bed, they may never get out again. Tact and persuasion and a good nurse are essential. Passive movements and exercises and massage in bed all help to give the patient confidence, and much can be done to help him out of bed without actually throwing him out of it. Acute pulmonary embolism, hypostatic pneumonia and ordinary inanition may kill the patient unless he can be encouraged to get up and walk. After certain operations walking may not be possible, and the risks are naturally increased.

Sleep. Old people normally sleep less than young ones. It is unlikely that their habits will have been changed for the better by the operation. On the contrary, it can be stated confidently that this trouble will be aggravated, and advice on this matter is difficult. The doctor must try to do what he can. Sometimes all medicines fail. In the early stages morphine can be given safely. Later, however, this must be stopped and the changes must be rung on the various soporifics available. If necessary, the patient must be kept awake in the day to prevent him from having all those snatches of sleep which even the worst insomniacs seem to achieve. If the patient does not sleep in the day (i.e. if he has been prevented from sleeping), then he may well sleep at night. Often after two or three sleepless nights the patient will sleep from exhaustion and on subsequent nights the sleep rhythm may be restored.

Post-operative Mental Changes. The poor state of the cerebral vessels in the aged may produce mental changes which become evident for the first time after operation. These cases are difficult to manage and patients who rise

and wander around the house must be restrained, if necessary, by tying them down. Morphine and sedatives are indicated and the treatment of the relations is imperative. Most of these conditions improve steadily without further treatment as the patients recover, but it may be necessary to consult a psychiatrist.

It is well to remember that many consultants, unlike the general practitioner, do not know what mental state the patient was in before operation, and a patient may have been already unbalanced before any surgery was contemplated. Relations are loth to admit that the patient was a little deranged before the operation, and it is well to consult the general practitioner about this before becoming needlessly alarmed. It should be stressed at this stage that in the team handling the aged sick the general practitioner has the important role of keeping a watching brief over the procedures adopted and advising on the foibles of the patient as only he is in the position to know them well.

Unremitting care and attention in the treatment of the aged is absolutely essential. The margin of error is so small that even apparently minor precautions are valuable. The feeling of satisfaction in the achievement of a successful outcome in a difficult case who was a poor surgical risk is always rewarding.

CONCLUSIONS

1. Surgery in the aged should be attempted only in cases where the operation is considered essential. All surgery in this age group is dangerous and should not lightly be undertaken.

2. The physician should try to convert a poor surgical risk into a reasonable one. He should not confine himself to stating the difficulties of the case and warning of the consequences. The physician, having satisfied himself that the operation is essential, must be prepared to produce the patient for operation in the best physical and mental state, and must be prepared to deal with all complications which may arise. A calculated risk is not as frightening as an unexpected one.

3. The pre- and post-operative treatment of surgery in the aged is presented and certain important points are discussed. Constant care and attention is imperative if the results are to be successful.

POTT'S DISEASE

C. J. KAPLAN, M.Ch.Orth., F.R.C.S. (ENG.)[†]
Durban

(Concluded from page 519)

THE COMPLICATIONS OF POTT'S DISEASE AND THEIR TREATMENT

1. *Bedsores.* These are entirely the result of bad nursing and are completely avoidable. They occur over the knuckle or, in paraplegics, over the sacrum, especially if there is incontinence.

2. *Renal Calculus.* This is due to a decubitus accretion

of calcium salts in the renal pelvis as a result of disuse decalcification of the skeleton. It shows as a faint shadow in the pelvis of the kidney, and will disappear with acidification of the urine as long as it remains uninfected. With infection, the stones become hard and permanent and may demand nephrolithotomy.

Prophylaxis is by keeping the urine slightly acid and by tilting the frame slightly to a different side for a couple of hours on alternate days.

3. *Abscess.* This is almost a normal concomitant of the disease and only becomes a complication when it tracks

[†] Assistant Orthopaedic Surgeon, Addington Hospital.

Visiting Orthopaedic Surgeon, King George V Springfield Hospital, Durban.

to the surface at one of its many possible sites of presentation and threatens to discharge. The sites of the complicating abscesses vary with the site of the disease.

i. *Cervical spine.* If the upper two or three vertebrae are affected, the abscess may present as a retro-pharyngeal mid-line swelling or, if involving the rest of the cervical spine, may present in the posterior triangle of the neck.

ii. *Upper and mid-thoracic spine.* A paravertebral abscess invariably apparent in A-P radiographs and if it tracks, its usual course is in one of four directions:

(a) Upwards to the neck.

(b) Laterally with the intercostal nerves and vessels to present on the thoracic wall where it may be confused with an empyema necessitatis, or a cold abscess from a breaking down lymph gland in the internal mammary chain.

(c) Backwards, to present through the paravertebral muscles in the line of the posterior primary rami.

(d) Downwards to enter the psoas sheath and continue as a psoas abscess.

More rarely such an abscess may burst into the pleural cavity. In the opinion of Albert (1949) if the patient is in recumbency and is treated by repeated aspiration, the condition should not be fatal. Adherence of the abscess and rupture into bronchi (Seddon, 1936; Brooks, 1942) the oesophagus (Seddon, 1936) and the aorta (Somerville and Wishart, 1948) have been reported.

iii. *Lower thoracic and lumbar spine.* The abscess may track:

(a) Backwards, to present as a lumbar abscess, usually in the sheath of quadratus lumborum.

(b) Downwards in the psoas sheath to present in the iliac fossa or below the inguinal ligament, or into the true pelvis and through the greater sciatic notch to appear as a gluteal abscess.

Generally speaking, the treatment of abscesses should be conservative unless one of the following indications is present:

1. The overlying skin shows signs of breaking down.

2. There are visceral signs due to the size of the abscess especially if it is continuing to increase.

3. Paraplegia is present. Often the appearance of an abscess in a patient with paraplegia is a sign that the paralysis will clear in a short time.

If drainage is required, it may be performed by aspiration through a wide-bore needle, or by incision. This procedure is always accompanied by the administration of Streptomycin until the wound is healed, if the patient is not one already selected for treatment with this drug. At the end of the aspiration 1 gm. of Streptomycin is usually injected into the cavity.

4. *Sinus.* Persistence of discharge following surgical drainage or spontaneous rupture of an abscess may continue for years. Whether this is due entirely to the presence of the tubercle bacillus, or to superimposed secondary invaders is difficult to say.

Dobson (1947) has used large doses of Penicillin after identifying Penicillin-sensitive organisms and has had good results even in cases where sinuses had been present for as long as 15 years. More recently, Bosworth (1950) has reported on the value of Streptomycin in persistent sinuses. In his series 83.2% of sinuses healed and all except one have remained healed over periods up to two years. The dosage used was 1 gm. per day until healing occurred followed by 1 gm. per day for a period half as long again, as it took for the healing to occur.

Persistence suggests the presence of sequestra and indicates the need for surgical exploration and excision of the sinus tract.

5. *Amyloid Disease.* This is the sequel to chronic grumbling disease accompanied by sinuses over a long period. The liver is palpable and death is usually from kidney failure. Diagnosis is confirmed by the Congo red test. There have been attempts to prevent amyloid by high protein feeding, the use of protein hydrolysate and concentrated human serum to raise the blood protein level. So far there is no proof that these measures are of any value.

6. *Paraplegia.* Paralysis as a complication of spinal disease was first described by Percival Pott (1779). He thought that the abscess was responsible and not the spinal curvature and his method of treatment was to drain the abscess by cautery and the use of setons.

The first critical appraisal of Pott's paraplegia was by Sorrel and Sorrel-Dejerine (1926) who observed two distinct clinical types of paralysis, viz. that associated with the early evolutionary phase of the disease and usually complete and that occurring later in the disease and often being incomplete.

Further intensive work on this subject has been done by Seddon (1935b), Weedon-Butler (1935), Girdlestone (1940), and Seddon and Alexander (1946), and this section is drawn largely from their work.

A. Early Onset Paraplegia: Type I. This comes on early in the active stage of the disease and is in direct relationship to the activity of the disease process. Typically it occurs during the first two years and usually within the first year: it is a complete paraplegia and goes on to complete recovery. It is responsible for about 40% of all Pott's paraplegia.

Type II. This is uncommon. Its onset is similar to Type I, but it results in a permanent paralysis. It is responsible for about 10% of all Pott's paraplegia.

B. Late Onset Paraplegia: Type III. This paraplegia appears in a patient who has been treated for Pott's disease and in whom the disease process appears to be healed; or in a case of chronic grumbling disease of long duration. According to Weedon-Butler (1935) it is usually due to a re-activation of the disease and causes a partial paraplegia. It is gradual in onset, the first sign being spasticity and wide-spread incomplete anaesthesia. This type is responsible for about 50% of all Pott's paraplegia.

It has been subdivided into:

Type IIIa, which recovers with conservative treatment as for Pott's disease.

Type IIIb, which causes a permanent partial paraplegia.

THE PATHOLOGY OF POTT'S PARAPLEGIA

Type I. Active tuberculous granulation tissue lies in contact with the dura which acts as a barrier to direct spread of the infection, but the proximity of the inflammatory process causes a toxic and vascular reaction in the cord and this, with the accompanying oedema interferes with conductivity and causes the paralysis.

Weedon-Butler (1935) emphasizes the importance of this reaction and adds that in many cases there is an additional factor of true compression due to the presence of granulation tissue, pus or sequestra. Garceau and Brady (1950) confirm the Sorrel's (1926) findings of tuber-

ulous pachymeningitis as a cause of paraplegia, although Weedon-Butler was unable to find it in his series.

Type II. This is due to inadequate or unsuccessful treatment of the spinal disease and the type I paraplegia with its prolonged toxic, vascular and mechanical effects causing permanent changes in the cord. Garceau and Brady have described thrombosis of the arteries of the cord. It may also be due to kinking of the cord over a bony ridge, or to pathological dislocation, but these findings are not common.

Type III. Here, there is re-infection, or a flare-up of a chronic tuberculous process and as it goes on to recovery the changes are similar to those described in type I.

Type IIIb paraplegia is usually associated with chronic grumbling disease leading to gliosis and contraction of the cord with permanent damage where it is drawn taut across the apex of the kyphosis.

THE PROGNOSIS IN POTT'S PARAPLEGIA

Seventy-five to 80% of cases recover with adequate conservative treatment. Various types of paraplegia are seen and are important in the prediction of recovery.

1. Paraplegia in extension indicates minimal interference with cord function, the muscles being spastic and recovery the rule.
2. Paraplegia in flexion indicates wider involvement of descending spinal tracts and according to Seddon (1935b) a bad prognosis.

3. Flaccid paraplegia is a bad sign as it indicates considerable destruction of the cord and a high degree of associated toxæmia and ill-health.

Paraplegia with no sign of recovery over a period of six months has been accepted as the indication that one is dealing with a type II paraplegia.

It has been observed repeatedly that if an abscess becomes palpable in a patient suffering from paraplegia, the paralysis often passes off quite rapidly indicating a relief of tension on the affected segment of the spinal cord.

THE TREATMENT OF POTT'S PARAPLEGIA

The early type I paraplegia is usually a transient condition that responds well to effective immobilization and general methods of treatment, the more since the introduction of Streptomycin. Colonna (1950) considers the best treatment of the paralysis to be uninterrupted recumbency and antibiotics. In frame nursing the only addition required is the application of skin traction to the legs to overcome the spasticity and any tendency to flexion. The paralysis will wax and wane with the activity of the spinal focus. In the event of sphincter involvement, urinary retention is treated by catheterization until automatic bladder responses are developed; persistent retention is better dealt with by means of a high supra-pubic cystostomy than by the use of an indwelling catheter.

For constipation, regular enemas are given; manual removal of impacted faeces should be carried out at regular weekly intervals. It is surprising how much can be removed and how the comfort and sense of well-being of the patient is improved.

A permanent paraplegic of type II or type III, whether condemned to a chair or bed-life, or rehabilitated to a tripod gait, may be more comfortable with a left inguinal colostomy.

If an abscess is palpable, it should be aspirated.

In the early case which is likely to recover spontaneously there is no indication for any of the more heroic surgical procedures.

In severe or progressive paraplegia when no sign of recovery is apparent after a period of two to three months, one must bear in mind the terrible disability of a permanent paralysis and consider the advisability of surgical treatment. During the evolutionary phase of the disease there are two possible procedures, both of which have their champions: laminectomy and costo-transversectomy. The former probably has its greatest value in the 'spinal-tumour syndrome' which is occasionally encountered in Pott's disease, whereas the operation of costo-transversectomy has the advantage that it attacks the abscess and vertebral focus directly which is the main cause of the paraplegia and reduces the pressure on the cord and may even reduce the toxicity of the focus; drainage by this route is away from the cord and not around it as in laminectomy. Admittedly, on many occasions operation will reveal not pus, but tuberculous granulation tissue with no immediate benefit, although pus may later find this trail that has been blazed for it.

Capener (1948) has devised the operation of lateral rhachotomy for use in the paraplegia with collapse and deformity. It can only be performed when the spine is stable with good somatic contact, as it involves removal of pedicles and so interferes with the structural integrity of the spinal column. By this route it is possible to visualize the front of the dura and the posterior aspect of the bodies, so that any extrinsic cause of the paraplegia can be identified and dealt with. Capener avoids the abscess for fear of meningitis, whereas Alexander (1946) in a similar type of operation, goes for the abscess as well by costo-transversectomy at the same time. Both of these procedures may play havoc with the stability of the spine and will demand accurately fitting anterior and posterior plaster shells with the addition of skull traction fittings in the case of cervical or upper thoracic lesions, and will probably require posterior spinal fusion at a later date.

To sum up: the early mild case requires continuity of conservative treatment, the severe case with no sign of recovery in two to three months requires costo-transversectomy and the case with kyphosis and in the type III category calls for lateral rhachotomy.

SUMMARY

1. The preponderance of the human strain of the tubercle bacillus in skeletal infection is indicated.
2. The theories of haematogenous and lymphatic spread to vertebral foci are discussed.
3. The various pathological types of involvement and their consequences are described.
4. A plan for the use of antibiotics and chemotherapy is submitted.
5. The case is argued for conservative and against operative treatment in the evolutionary stage of the disease.
6. The principles of after-care are discussed.
7. The treatment of complications is detailed.
8. The care of paraplegics is described and the necessity emphasized for radical operative measures when indicated.

I wish to thank Dr. J. Dobson, Medical Superintendent of Wrightington Open Air Hospital, Lancashire, for his hospitality.

the tonic
"all-rounder"

Iron, copper and manganese, accepted haemopoietic stimulants . . . glycerophosphates of calcium, sodium and potassium, traditional "nerve tonic" ingredients . . . vitamins A and D to protect the body tissues . . . these are the three tonic groups that make Minadex such an effective nutritional "all-rounder". And its fresh orange flavour makes it a favourite with young and old alike.

Each fluid ounce contains vitamin A, 18,000 units; vitamin D, 3,000 units; iron and ammonium citrate, 14 grains; glycerophosphates of calcium, potassium, sodium and manganese; copper sulphate.

In six-ounce bottles.



**SYRUP
MINADEX**

GLAXO LABORATORIES (S.A.) (PTY.) LTD. P.O. BOX 9875, JOHANNESBURG

Agents: South Africa: Menley & James (Col.) Ltd., P.O. Box 784, Port Elizabeth. Rhodesia: Geddes Ltd., P.O. Box 877, Bulawayo; 1691, Salisbury

AA 224

from 15 lbs....



...and advisable until
all 20 milk teeth
are through

The infant's introduction to mixed feeding is ably provided by Farex. The three cereals in Farex supply the protein and carbohydrate needed at this stage, together with a small but beneficial amount of 'training' roughage. Calcium, phosphorus and vitamin D are added to promote strong skeletal development, and iron is included in Farex for its haemopoietic properties. Throughout the early, formative years, a large measure of the essential balanced nourishment can be derived from Farex. To this effect, a convenient reminder to mothers is to continue giving Farex daily 'at least until baby has a full set of milk teeth.'

GLAXO

F A R E X

Ready-cooked 3-cereal food 10-oz. carton

GLAXO LABORATORIES (S.A.) (Pty.) LTD., P.O. BOX 9875, JOHANNESBURG

Agents: SOUTH AFRICA: Menley & James (Col.) Ltd., P.O. Box 784, Port Elizabeth. RHODESIA: Geddes Ltd., P.O. Boxes 877, Bulawayo; 1691, Salisbury

AA 227

Doctors!



KLIM

is full-cream milk in powdered form
SAFE, PURE and ALWAYS DEPENDABLE

*You can recommend
KLIM with every confidence
for infant feeding*

KLIM is obtainable in 3 sizes.
1 lb. and the economical family
2½ lb. and 5 lb. tins.



THE BORDEN COMPANY (SOUTH AFRICA) (PTY.) LTD.
Argus House, 63 Burg Street, Cape Town

FIRST IN PREFERENCE THE WORLD OVER



THE THERAPY OF ASTHMA

The treatment of asthma demands consideration of underlying causes and factors. The former are variable, but the underlying factor—broncho-spasm—is always the same.

Whether the cause is removable or not, the broncho-spasm can be treated successfully with FELSOL.

Chronic cases yield to patient treatment with FELSOL—the preparation which has long enjoyed the confidence of the medical profession and has been prescribed consistently by doctors in hospital, private practice and Government Departments.

NO MORPHIA — NO NARCOTICS

Physicians' samples and literature available on request to



**SOUTH AFRICA: MACDONALD, ADAMS & CO., LTD.
CORNER KERK and FRASER STREETS, JOHANNESBURG
BRITISH FEL SOL COMPANY LTD., 206/212 ST. JOHN STREET, LONDON, E.C.1**

broadly

FUNDAMENTAL

ACTHAR

ARMOUR LABORATORIES BRAND OF
ADRENOCORTICOTROPIC HORMONE (ACTH)

Adrenocortical stimulation appears to counteract and control fundamental manifestations of disease—fever from almost any source; pain from almost any cause; acute inflammation of joints, the eye, the skin, the colon; and it appears to endow cells with immunity against a host of toxic agents including the majority of allergens. Administration of ACTHAR, representing the physiologic stimulus for the adrenal cortex, brings about rapid release and sustained production of all cortical hormones.

Rarely has a more potent therapeutic agent been put in the hands of the profession.

ACTHAR is available in vials of 10, 15 and 40 International Units (milligrams). The Armour Standard of ACTHAR is accepted as the International Unit: 1 I.U. equals 1 mg.

ESTABLISHED INDICATIONS: Rheumatoid arthritis, rheumatic fever, acute lupus erythematosus, severe asthma, drug sensitivities, contact dermatitis, most acute inflammatory diseases of the eye, acute pemphigus, exfoliative dermatitis, ulcerative colitis, acute gouty arthritis and secondary adrenal cortical hypofunction.

THE ARMOUR LABORATORIES
CHICAGO 11, ILLINOIS

Sole distributors for South Africa and the Rhodesias: PETERSEN LTD. P.O. BOX 38, CAPE TOWN
P.O. BOX 1972, JOHANNESBURG

help and interest and for his permission to examine and report on his cases.

While no specific mention is made in the text to the late Prof. T. P. McMurray, I would like to place it on record that this paper was largely inspired by and is, I hope, representative of his teaching in Liverpool.

REFERENCES

- Albee, F. H. (1911): J. Amer. Med. Assoc., **57**, 885.
Idem (1930): *Ibid.*, **94**, 1467.
Idem (1933): Amer. J. Surg., **21**, 204.
 Albert, M. (1949): Proc. Roy. Soc. Med., **42**, 275.
 Alexander, G. L. (1946): *Ibid.*, **39**, 730.
 Bosworth, D. M., Pietra, A. D. and Farrel, R. E. (1950): J. Bone Jt. Surg., **32A**, 103.
 Brooks, W. D. W. (1942): Brit. J. Tuberc., **36**, 49.
 Burke, H. E. (1950): Amer. Rev. Tuberc., **62**, 1-B, 48.
 Capener, N. (1948): Quoted by Girdlestone (1950) q.v.
 Cleveland, M. (1939): J. Bone Jt. Surg., **21**, 607.
 Collins, D. H. (1949): *The Pathology of Articular and Spinal Diseases*, p. 295 et seq. London: Edward Arnold & Co.
 Colonna, P. C. (1950): *Regional Orthopaedic Surgery*, p. 144. Philadelphia: W. B. Saunders & Co.
 Commerell, J. J. (1950): S. Afr. Med. J., **24**, 1026.
 Compere, E. L. and Garrison, M. (1936): Ann. Surg., **104**, 1038.
 Crofton, J. (1950): Proc. Roy. Soc. Med., **43**, 692.
 Delaude, A. et al. (1949): Proc. Staff Meet. Mayo Clinic, **24**, 341.
 Dobson, J. (1947): Personal communication.
 Dunn, D. M. (1948): Proc. Roy. Soc. Med., **41**, 858.
 Fraser, J. (1929): Edin. Med. J., **36**, 133.
 Garceau, G. J. and Brady, T. A. (1950): J. Bone Jt. Surg., **32A**, 87.
 Girdlestone, G. R. (1940): *Tuberculosis of Bone and Joint*. London: Oxford University Press.
Idem (1950): *Modern Trends in Orthopaedics*, p. 34 et seq. Ed. by Sir Harry Platt. London: Butterworth & Co. Ltd.
 Guri, J. P. (1947): J. Bone Jt. Surg., **29**, 136.
 Hibbs, R. A. (1912a): Ann. Surg., **55**, 682.
Idem (1912b): J. Amer. Med. Assoc., **59**, 433.
 Hilton, J. (1863): *Rest and Pain*, 2nd ed. London: G. Bell & Sons, 1950.
 Illingworth, C. F. W. and Dick, B. M. (1945): *Text Book of Surgical Pathology*, 5th ed. London: J. & A. Churchill.
 Madigan, D. G. et al. (1950): Lancet, **1**, 239.
 Mann, K. J. (1946): *Ibid.*, **2**, 744.
 Mayer, L. et al. (1938): J. Amer. Med. Assoc., **110**, 480.
 McKee, G. K. (1936): Brit. J. Surg., **24**, 456.
 Medical Research Council (1949): Lancet, **2**, 1237.
 Meng, C. M. and Chen, H. I. (1935): J. Bone Jt. Surg., **17**, 552.
 Mercer, W. (1950): *Orthopaedic Surgery*, 4th ed., p. 262 et seq. London: Edward Arnold & Co.
 Pott, Percival (1779): *Miscellanea Medica*, V. London: Printed for J. Johnson.
 Ragolsky, H. (1929): New Eng. J. Med., **201**, 11.
 Rollier, A. (1926): J. Bone Jt. Surg., **8**, 360.
 Rosencrantz, E. et al. (1941): *Ibid.*, **23**, 628.
 Seddon, H. J. (1935a): Lancet, **2**, 355.
Idem (1935b): Brit. J. Surg., **22**, 769.
Idem (1936): Proc. Roy. Soc. Med., **29**, 1662.
Idem (1938): *Ibid.*, **31**, 951.
 Seddon, H. J. and Alexander, G. L. (1946): *Ibid.*, **39**, 723.
 Smith, A. De F. and Yu, H. I-S (1950): J. Amer. Med. Assoc., **142**, 1.
 Snell, V. (1948): Proc. Roy. Soc. Med., **41**, 853.
 Snyder, C. H. (1933): J. Bone Jt. Surg., **15**, 924.
 Somerville, E. W. and Wishart, J. (1948): J. Bone Jt. Surg., **30B**, 327.
 Sorrel, E. et Sorrel-Dejerine, Mme. (1926): Presse Med., **34**, 785.
 Tepper, L. and Jacobson, G. (1943): Amer. Rev. Tuberc., **47**, 156.
 Thomas, H. O. (1887): *Contributions to Surgery and Medicine*, Part III, p. 4. London: H. K. Lewis & Co.
 Tucker, W. B. (1949): Amer. Rev. Tuberc., **60**, 715.
 Waksman, S. A. (1950): Brit. Med. J., **2**, 595.
 Waldenstrom, H. (1924): Acta Chir. Scand., **56**, 463.
 Weedon-Butler, R. (1935): Brit. J. Surg., **22**, 738.
 Wilkinson, M. C. (1950): Proc. Roy. Soc. Med., **43**, 114.
 Wood, F. G. (1948): *Ibid.*, **41**, 856.
 Other publications consulted during the preparation of this paper, but not specifically referred to in the text:
 Albee, F. H., Powers, E. J. and McDowell, H. C. (1945): *Surgery of the Spinal Column*. Philadelphia: F. A. Davis & Co.
 Boyd, W. (1943): *Surgical Pathology*, 5th ed. Philadelphia: W. B. Saunders Co.
 DeCourcey-Wheeler, W. I. (1928): *The Robert Jones Birthday Volume*, p. 325.
 Harris, R. I. (1930): Amer. J. Surg., **10**, 514.
Idem (1934): Amer. Rev. Tuberc., **29**, 223.
 Henderson, M. S. (1917): Surg. Gynec. Obst., **24**, 600.
 Jones, R. and Lovett, R. W. (1929): *Orthopaedic Surgery*, 2nd ed. New York.
 Speed, J. S. and Smith, H. (1949): *Campbell's Operative Orthopaedics*, 2nd ed. London: Henry Kimpton Ltd.
 Steinleider, A. (1943): *Orthopaedic Operations*, Springfield: Charles C. Thomas.
 McMurray, T. P. (1946): *Practice of Orthopaedic Surgery*, 2nd ed. London: Edward Arnold & Co.
 Willis, T. A. (1926): Surg. Gynec. Obst., **43**, 285.

SOME DISCREPANCIES IN DISEASE INCIDENCE BETWEEN THE EUROPEAN AND THE SOUTH AFRICAN NEGRO (BANTU)*

G. P. CHARLEWOOD, F.R.C.S. (Ed.), M.R.C.O.G.

Department of Obstetrics and Gynaecology, University of the Witwatersrand
and

R. FRYLINCK, F.R.C.S. (Eng.), F.R.C.S. (Ed.)

Department of Surgery, University of the Witwatersrand

In considering a differential diagnosis the wise clinician always consciously or unconsciously keeps in mind the relative incidence of the various possibilities. He is unwilling to commit himself to the diagnosis of a rare condition without overwhelming evidence, leaning rather to one which occurs commonly.

* The References will be published at the end of the concluding part of this article.

For such clinical purposes the incidence of most disease processes in the European is sufficiently well established. Experience has shown, however, that this well-known set of values is not applicable to the South African Native.

It is the purpose of this article to illustrate these differences as far as possible and to inquire into the possible reasons for them.

The material used for this study is the patient population of the three main teaching hospitals in Johannesburg.

i.e. the General Hospital (European), and the Baragwanath and Coronation non-European Hospitals. When the children's and obstetrical wards are excluded, then the pathological conditions for which admission is available is identical in the three hospitals.

The total admissions, exclusive of children's and obstetrical wards, were as follows:—

| | General Hospital European | Baragwanath Hospital Non-European | Coronation Hospital Non-European |
|-----------------------------|---------------------------|-----------------------------------|----------------------------------|
| 1948 | 15,829 | 11,653 | 10,561 |
| 1949 | 16,063 | 18,781 | 9,116 |
| *1950, up to 31 August | 12,128 | 14,720 | 6,217 |
| 1950, up to 31 December | 15,974 | 24,217 | 9,702 |
| *Total up to 31 August 1950 | 44,020 | 45,154 | 25,894 |
| Total to December 1950 | 47,866 | 54,651 | 27,379 |

*Some figures were available only up to 31 August 1950.

These figures included a proportion of Coloured (European-African) patients, but their number was so small as not to invalidate conclusions based on the assumption that all patients were Bantu. Of over 1,700 beds at Baragwanath and Coronation Hospitals only 124 were for Coloured use.

Furthermore, since the Coloured population is mainly of mixed European and African descent their inclusion as Bantu for the purposes of this paper must tend to minimize rather than to exaggerate any differences found in the incidence of disease between Europeans and Bantu.

Basis for Comparison. Three possible methods of using the material presented here for comparison between European and Bantu have occurred to us:

(a) Firstly, on a population basis, i.e. by comparing the numbers of patients admitted for a particular condition per 100,000 population from which the patients were drawn. This would reflect the viewpoint of the general practitioner or the municipal medical officer working in clinics. It cannot be said to reflect any inborn racial tendency since such factors as average age of population, social and economic factors, willingness to be seen by a doctor, etc., all bear on the final figures.

(b) Secondly, on a hospital population basis, i.e. by comparing the admissions per 1,000 hospital population (Figs. 1 and 2). The significance of this method refers not to the real incidence of a pathological condition in a large urban population, but merely to the proportion of that pathological condition to the rest of the total number of patients admitted to hospital. It does, however, give a comparison between European and Bantu from the point of view of the casualty officer through whom all admissions must pass.

(c) Thirdly, from a narrower point of view of a specialist in his wards, e.g. the percentage of the total gynaecological admissions which a particular disease constitutes.

The first two methods of comparison have been used by us. The third method has only been used indirectly where considered of special interest and importance in differential diagnosis.

ASSESSMENT OF POPULATION

African. From our own experience and knowledge of the local urban population, and after consulting the offices of the Medical Officer of Health, we submit that the true European incidence should be calculated on a population

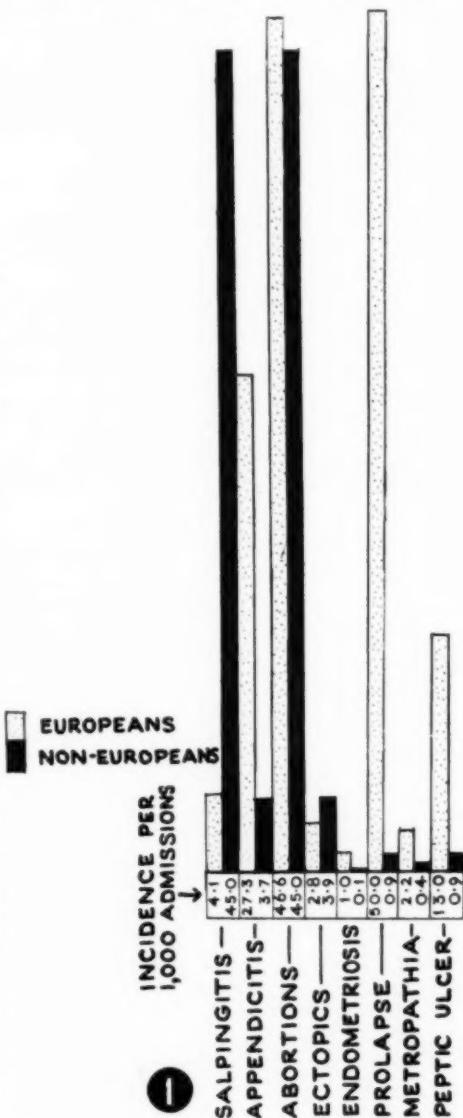
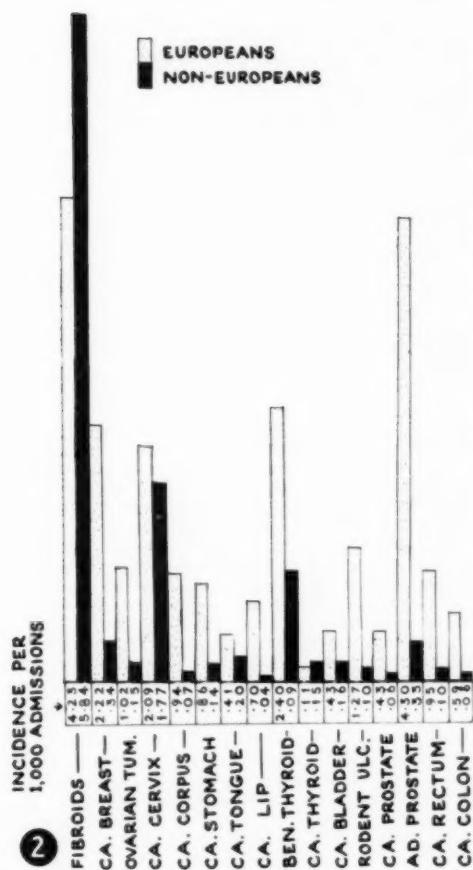


figure of 400,000. The information supplied officially is that on 30 June 1950 the figures were as follows:

| | | | |
|-----------|-----|-----|---------|
| Natives | ... | ... | 423,700 |
| Coloureds | ... | ... | 27,000 |
| Asiatics | ... | ... | 17,000 |
| Total | ... | ... | 467,700 |



The reasons for reducing the last figure to 400,000 as the population on which Baragwanath and Coronation Hospitals draw on for their material are:

1. Many Coloureds and Asiatics consult doctors in private practice.

2. In Johannesburg there are other, but smaller, hospitals like Nokapela and Edenvale, and some Bantu go to Reef hospitals such as Boksburg, Germiston, Krugersdorp, etc. We ourselves have had patients presenting in Johannesburg at their first visit, but going to a Reef hospital for the

operation. The doctors in charge of medical services in the townships agree with us on this point. It is probable that some patients return to the territories from which they came without receiving attention for the more major conditions dealt with in this paper.

3. It is probable that during 1948 and 1949 the population was smaller than at June 1950 because of the continuous increase which is taking place.

4. The effect of the shifting population on the amount of pathological material seen is unpredictable, because the patients must take out chronic disease as well as bring it in; those that do go to hospital have the choice of a number of hospitals in the Transvaal and Natal, and cannot all gravitate to the Johannesburg hospitals.

We would be afraid to put the non-European population (almost exclusively Bantu) higher than 400,000.

European. The European population on which the General Hospital draws has been estimated to be 300,000. There is an official population of nearly 400,000 and the hospital authorities have based bed-requirements on a population of 80% of the whole. The rest of the patients consult private practitioners. The figure of 300,000 is in danger of being rather high, but in view of the fact that some patients are referred from or come spontaneously from the Reef and other parts of the Transvaal it is felt that 300,000 is the safest figure to use.

It is our purpose to discover the true comparative incidence of a series of pathological conditions. We include all the figures necessary for certain other simple statistical analyses. It follows accordingly that, if the critic desires to calculate incidence differences on either larger or smaller populations than we have considered, the facts presented still possess the value which we intend them to offer.

Standard of Error. Because the sizes of the populations studied are not quite as clearly defined as one would have wished, a difference of $3 \times$ the standard of error has been taken as significant. This is a higher figure than that usually considered necessary.

Age of Hospital Population. On comparing the average age of 1,000 admissions to the General Hospital with the average age of 1,000 admissions to Baragwanath Hospital (excluding obstetrical and children's wards) the following differences were found:

| | | | |
|-----------|--------------------|-------|--------------------|
| Europeans | Males 41·9 years | Bantu | Males 34·5 years |
| | Females 42·3 years | | Females 30·7 years |

The figures reflect a lower average age of the surrounding Native population, due either to a local population of a lower average age or to a lower expectation of life amongst non-Europeans. This age factor must be taken into account when considering diseases which are typically associated with advancing years.

NON-NEOPLASTIC CONDITIONS

The figures in this section were all obtained from hospital records except in the case of metropathia haemorrhagica, endometriosis and adenomyosis, where the figures were obtained from the Pathological Department of the South African Institute for Medical Research.

Appendicitis is generally conceded to be less common in the African than in the European. Gelfand found it as the

cause of death only eight times in 2,000 autopsies in the Bantu. Bilharzial appendicitis is common in the Bantu wherever schistosomiasis is prevalent. Lovett Campbell, for instance, found it in 57% of all appendices removed in Northern Nigeria. Thus in some localities the incidence of appendicitis is partly dependent on the incidence of bilharziasis. At the South African Institute for Medical Research there were 199 bilharzial appendices sectioned between 1911 and 1948 (Charlewood *et al.*, 1949).

Table 2 shows how relatively infrequent appendicitis appears to be in the African Native as compared with the European.

TABLE 2

| Hospital | Race | Year | Total Admissions | Appendicitis Cases | Incidence per 1,000 Admissions |
|------------------------------------|--------------|------|------------------|--------------------|--------------------------------|
| General | European | 1945 | 14,355 | 430 | 27.3 |
| | | 1946 | 16,353 | 439 | |
| | | 1947 | 15,727 | 438 | |
| | | 1948 | 15,828 | 431 | |
| | | 1949 | 16,063 | 405 | |
| | | | 78,328 | 2,143 | |
| Non-European Department of General | Non-European | 1943 | 19,542 | 71 | 3.7 |
| | | 1944 | 21,512 | 106 | |
| | | 1945 | 16,890 | 59 | |
| | | 1946 | 17,148 | 59 | |
| | | 1947 | 20,144 | 53 | |
| | | 1948 | 8,112 | 38 | |
| | | | 103,618 | 386 | |
| Baragwanath | Non-European | 1948 | 11,653 | 47 | 5.4 |
| | | 1949 | 18,781 | 119 | |
| | | | 30,434 | 166 | |
| Coronation | Non-European | 1949 | 10,310 | 23 | 2.2 |

Taking the European and Bantu population for 1949 as 300,000 and 400,000 respectively, the incidence per 100,000 population was 135.0 and 35.5 respectively. The difference = $99.5 \pm 7.5 = 13.3 \times \text{standard error}$. For the same year on a hospital basis the difference = $2.01 \pm 0.13\% = 15.5 \times \text{standard error}$.

These figures are highly significant, and indicate that in the Johannesburg hospital type of patient at least, appendicitis is many times more common in the European than in the Bantu. The reason for this difference is not clear. It has been suggested that the difference in diet is mainly responsible. Thus Native troops on a full meat diet are said to have as high an incidence of appendicitis as Europeans. In areas where meat is the staple diet such as New Zealand, the incidence of appendicitis in the general population is high. On the other hand the incidence of appendicitis amongst 90,000 Natives employed by one mining house in Johannesburg was 15 cases in 1950, an incidence of 0.16 per 1,000 (Orenstein, 1951). These Natives are given about 4 lb. of meat per person per week as a basic allowance. This is as much meat as most Europeans are getting at present. The diet factor is therefore called into question.

In the urban Bantu the incidence of salpingitis is

extremely high; as will be shown later, it was 45 per 1,000 admissions at Baragwanath and Coronation hospitals. Thus in Native cases where the diagnosis on symptomatology alone rests between salpingitis and appendicitis, the probabilities are very much in favour of salpingitis. In European cases the balance is rather more in favour of appendicitis.

Chronic Salpingitis. After sterility this is the commonest diagnosis in gynaecological out-patient departments serving the Bantu. In the wards, acute salpingitis vies with abortion for pride of place. The figures in Table 3 show how much more frequently salpingitis cases are admitted to the wards of Baragwanath Hospital than to those of the General Hospital. Calculation statistically shows the difference per 100,000 population to be $728.0 \pm 14.7 = 50.0 \times \text{standard error}$.

TABLE 3

| | Europeans | | | Non-Europeans | | |
|---------|------------------|----------------------|----------------------|---------------|--------------|---------------------|
| | General Hospital | Baragwanath Hospital | Corona-tion Hospital | Total | Non-European | Incidence per 1,000 |
| 1948 .. | 67 | 375 | 491 | | | |
| 1949 .. | 57 | 783 | 465 | 3,172 | | |
| 1950 .. | 61 | 543 | 515 | | | |
| | 185 | 4.1 | 1,701 | 1,471 | | 45.0 |

These figures, of course, merely reflect the unsatisfactory social and educational conditions in the Native Townships surrounding Johannesburg. They cannot be taken to indicate any special inborn racial tendency.

The significance of these figures on the question of the differential diagnosis between appendicitis and salpingitis has already been considered in the section on appendicitis, and will later be considered in relation to the diagnosis of endometriosis and unruptured ectopic pregnancy.

Abortions. Statistically the figures in Table 4 show that abortions are commoner in the non-European on a population basis. The difference = $169.0 \pm 21.4 = 7.9 \times \text{standard error}$. On an admission basis the difference = $2.0 \pm 1.2\% = 1.7 \times \text{standard error}$ which is not significant.

TABLE 4

| | General Hospital | | Baragwanath and Coronation Hospitals | |
|---------|------------------|--------------|--------------------------------------|--------------|
| | European | Non-European | European | Non-European |
| 1948 .. | .. | 685 | 480 | 405 |
| 1949 .. | .. | 774 | 878 | 427 |
| 1950 .. | .. | 773 | 1,006 | 447 |
| | | 2,232 | 3,643 | |

Incidence per 100,000 population: Europeans 744.0
Bantu 910.8

Incidence per 1,000 admissions: Europeans 46.6
Bantu 44.6

That an under-privileged status and an inadequate diet are important factors in the production of abortions and still-births has been shown by many workers (e.g., Ebbs *et*

al., 1942). The above figures, on a population basis at least, support this view, since the peri-urban Native is probably malnourished when compared with the European. However, there are many other possible factors such as criminal abortion, which may play a part.

Ectopic Pregnancy. Buss et al. (1950) have pointed to the very high incidence of ectopic pregnancy in Cape Town as being the highest recorded in the world, there having been 348 cases in the last five years.

The figures in Table 5 show that over three years the number of cases at Baragwanath and Coronation Hospitals has been not dissimilar.

Buss et al. consider that the high incidence of ectopic pregnancies in Cape Town is due to the high incidence of salpingitis.

TABLE 5

| | General Hospital | Baragwanath Hospital | Coronation Hospital |
|-----------------------------------|-------------------|----------------------|---------------------|
| 1948 | 52 | 43 | 24 |
| 1949 | 32 | 75 | 38 |
| 1950 | 49 | 94 | 38 |
| Europeans | 133 | Non-Europeans | 312 |
| Incidence per 1,000 admissions: | Europeans .. 2.8 | | |
| | Bantu .. 3.9 | | |
| Incidence per 100,000 population: | Europeans .. 44.3 | | |
| | Bantu .. 78.0 | | |

On a population basis the difference = $34.0 - 5.8 = 5.7$ x standard error. On an admission basis the difference = $1.1 \pm 0.14 = 7.9$ x standard error.

Both these figures are statistically highly significant, and one may assume that the higher incidence of ectopic pregnancies in the non-European is related to the higher incidence of salpingitis previously shown.

Unruptured Ectopic Pregnancy. It is often difficult to decide whether a woman who has missed one or two periods and has a mobile mass in one fornix has an unruptured ectopic pregnancy or some form of salpingitis such as a hydrosalpinx. It will be obvious from the previous figures that for non-Europeans at least the chances are very much in favour of a salpingitis. In seven such cases seen by the authors, on laparotomy the mass was found to be a hydro- or pyosalpinx in five, an ovarian cyst in one, and an unruptured ectopic pregnancy in one.

Endometriosis and Adenomyosis. Endometriosis, seldom an easy diagnosis to make clinically, is hardly ever diagnosed in the Bantu, since experience has shown it to be rare, while salpingitis, its main diagnostic rival, is very common.

Table 6, based on cases which have been proved histologically, shows endometriosis and adenomyosis to be more common in the European than in the Bantu.

The figures given here, compared with those previously given for salpingitis, suggest that in doubtful Bantu cases the odds are greatly in favour of salpingitis rather than endometriosis. In Europeans the odds are only slightly in favour of salpingitis.

The differentiation between fibromyomata and adenomyomata is not usually important clinically.

TABLE 6

| | General Hospital | | Baragwanath Hospital | | Coronation Hospital | |
|------|------------------|----------------|----------------------|----------------|---------------------|----------------|
| | Adeno-myosis | Endo-metriosis | Adeno-myosis | Endo-metriosis | Adeno-myosis | Endo-metriosis |
| 1950 | 8 | 9 | 3 | 1 | — | — |
| 1949 | 14 | 5 | — | 1 | 1 | — |
| 1948 | 4 | 2 | — | — | — | — |
| | — | — | — | — | — | — |
| | 26 | 16 | 3 | 2 | 1 | 0 |
| | 40 | | 5 | | 1 | |

European incidence: 0.99 per 1,000 admissions.

Non-European incidence: 0.084 per 1,000 admissions.

These figures are statistically significant. Thus for extrauterine endometriosis the difference = $4.8 \pm 1.35 = 3.6$ x standard error on a population basis.

The reason for the comparative rarity of endometriosis and adenomyosis in the Bantu is wrapped in the obscurity surrounding the aetiology of this condition. Child-bearing late in life and contraception are often blamed in the European, and admittedly do not apply to the same extent in the Bantu.

Genital Prolapse. That prolapse is rare in the Bantu is common knowledge to all who deal with the gynaecology of these people. Recently Geldenhuys (1950) showed that in the Pretoria Hospital genital prolapse was 11 times as common in European women as in Bantu women.

Table 7, showing the figures at the Johannesburg General Hospital, also emphasizes the rarity of this condition amongst the Bantu.

TABLE 7

| | Year | Total Admissions | Prolapse Cases | Incidence per 1,000 |
|---|---------|------------------|----------------|---------------------|
| General Hospital | 1945 .. | 14,355 | 111 | |
| | 1946 .. | 16,354 | 98 | |
| | 1947 .. | 15,727 | 51 | 5.0 |
| | 1948 .. | 15,829 | 46 | |
| | 1949 .. | 16,063 | 86 | |
| | | 78,328 | 392 | |
| Non-European Department of General Hospital | 1943 .. | 19,542 | nil | |
| | 1944 .. | 21,512 | nil | |
| | 1945 .. | 16,890 | nil | 0.09 |
| | 1946 .. | 17,418 | 6 | |
| | 1947 .. | 20,144 | nil | |
| Non-Europeans | 1948 .. | 8,112 | 3 | |
| | | 103,618 | 9 | |

When it is remembered that these nine non-European cases probably included some Coloureds, it is clear that prolapse is almost a curiosity amongst Africans.

Geldenhuys believes that the Bantu is constitutionally superior in this respect, and considers that the squatting or kneeling position (used by most non-European races during parturition) may lessen the risks of subsequent prolapse.

In India, however, where the squatting position is normally used in the rural areas, genital prolapse is extremely common.

It seems more likely that the tremendous fibrosis, which is such a characteristic tissue reaction in the Bantu, tends to prevent prolapse. This fibrosis is well illustrated by the gross vaginal strictures which are not infrequently seen in the African after obstructed labours, but which are very rare in the European.

Functional Uterine Bleeding. Clinical experience has led one to the general impression that functional uterine haemorrhages are infrequent in the Bantu. Such conditions, however, belong to a rather ill-defined group, making comparison difficult. We therefore restricted our figures to cases diagnosed as metropathia haemorrhagica on histological section at the South African Institute for Medical Research during a period when one of us was on the senior staff of the three hospitals concerned. Reasonably uniform indications for admission to hospital and for diagnostic curettage were thus assured.

The figures shown in Table 8 suggest that metropathia haemorrhagica is considerably more common in the European than in the Bantu.

TABLE 8

| | Year | Metropathia Cases | Incidence per 1,000 Admissions |
|----------------------------|-------------------|-------------------|--------------------------------|
| General Hospital Europeans | 1948 .. | 27 | |
| | 1949 .. | 47 | 2.15 |
| | 1950 to August .. | 21 | |
| | | 95 | |
| Baragwanath Non-Europeans | 1948 .. | 5 | |
| | 1949 .. | 9 | 0.39 |
| | 1950 to August .. | 4 | |
| | | 18 | |
| Coronation Non-Europeans | 1948 .. | 6 | |
| | 1949 .. | 4 | 0.43 |
| | 1950 to August .. | 2 | |
| | | 12 | |

On a population basis the difference = $22.5 \pm 3.4 = 6.6 \times$ standard error. On an admission basis the difference = $1.8 \pm 2.3 = 7.8 \times$ standard error.

These results must be regarded as being significant.

It is possible that the greater stresses and strains which

civilization imposes on the European than on the Bantu (so far) is responsible for the more frequent incidence of functional uterine bleeding. It is of interest to note that suicide is rare in the Bantu (Walton, 1950).

Peptic Ulcer. It is a general impression that peptic ulcer is relatively uncommon in the Bantu (though Gelfand suggests that it may be commoner in the urbanized Native).

Figures from the Johannesburg teaching hospitals (Table 9) bear out this impression. This knowledge is reassuring when treating vague upper abdominal pains in the Bantu.

Probably the Bantu, even when urbanized, is less subject to the stresses and strains of civilization, and is therefore less prone to peptic ulceration. A consideration of all other aetiological factors leaves only the neurogenic theory as a possible explanation for the difference.

TABLE 9

| | Year | Total Admissions | Peptic Ulcer Cases | Incidence per 1,000 Admissions |
|--------------------------------|---------|------------------|--------------------|--------------------------------|
| General Hospital Europeans | 1945 .. | 14,355 | 153 | |
| | 1946 .. | 16,354 | 227 | |
| | 1947 .. | 15,727 | 200 | 13.0 |
| | 1948 .. | 15,829 | 191 | |
| | 1949 .. | 16,063 | 262 | |
| | | 78,328 | 1,033 | 13.0 |
| Non-European Hospitals Natives | 1943 .. | 19,542 | 15 | |
| | 1944 .. | 21,512 | 23 | |
| | 1945 .. | 16,890 | 18 | 0.9 |
| | 1946 .. | 17,418 | 18 | |
| | 1947 .. | 20,144 | 19 | |
| | 1948 .. | 8,112 | 3 | |
| | | 103,618 | 94 | |
| Baragwanath Natives | 1948 .. | 11,653 | 9 | 0.95 |
| | 1949 .. | 18,781 | 20 | |
| | | 30,434 | 29 | |

These figures suggest that peptic ulceration is obviously many times as common in the European as in the Bantu, and mathematical calculation of the significant difference is unnecessary.

(To be concluded)

VERENIGINGSNUUS : ASSOCIATION NEWS

NATAL COASTAL BRANCH

MINUTES OF THE CLINICAL MEETING, HELD IN RED CROSS HOUSE, OLD FORT ROAD, DURBAN, ON 1 MARCH 1951, AT 8 P.M.

Present: Dr. A. Broomberg, President, occupied the Chair. Some 40 members and guests attended.

The President announced that before proceeding with the main subject for the evening a short address would be delivered by Dr. David Ordman, Superintendent for many years of the Allergy Laboratories of the South African Institute for Medical Research, who had come to Natal to conduct a survey of the problem of allergy and what contribution Natal could make towards its solution.

Dr. Ordman said he very much appreciated having this opportunity of addressing this Branch and felt especially privileged in being permitted to give a short talk before the lecture of the distinguished guest speaker for the evening.

Dr. Ordman grouped his remarks under two headings, viz. allergy as we see it, and the future of allergy as we visualize it. It was the Cinderella of the Medical World, he said. He continued that they had a shrewd idea of what was going on in the Transvaal and the Orange Free State, e.g. hay fever from grass pollen and from the winter-flowering cypress, but asthma, vaso-motor rhinitis and hay fever were all more prevalent in Natal than elsewhere.

Dr. Ordman stated that no conclusion had been reached with regard to the flora etiology of allergy, but insect-pollinated trees and plants were not an important cause. Possibly it was airborne fungus spores in a humid atmosphere. He particularly wished to investigate the part spores played and also

"Premarin"
... AT THE MENOPAUSE

The physical symptoms of the menopause are often intensified by mental depression and a negative outlook. "Premarin" therapy not only alleviates the physical discomfort but also engenders a feeling of well-being. This naturally-occurring estrogen is active by mouth and exceptionally well tolerated.

"Premarin"
conjugated estrogenic substances (equine)

TABLETS — No. 866
1.25 mg. per tablet
in bottles of 20 and 100

LIQUID — No. 869
0.625 mg. per teaspoonful
in bottles of 4 ounces.

Ayerst

Sole Distributors for South Africa
CANADIAN ETHICALS (Pty.) LIMITED
P.O. Box 4427, CAPE TOWN
Telephone: 2-8332

922

VITAMINS FOR ALL AGES

ABIDE

Capsules for ADULTS

A new product containing the eight vitamins of the well-known 'Abidec' Drops formula in proportions supplying an adequate vitamin intake in the daily dose of one capsule.

Each Capsule represents:

| | | | |
|------------------------|------------|------------------------|----------|
| Vitamin A | 5,000 I.U. | Vitamin B ₆ | 0.5 mgm. |
| Vitamin D | 500 I.U. | Pantothenic Acid | 1 mgm. |
| Vitamin B ₁ | 1 mgm. | Nicotinamide | 10 mgm. |
| Vitamin B ₂ | 1 mgm. | Vitamin C | 25 mgm. |

In bottles of 30 and 250 Capsules

A B I D E C

Drops for INFANTS & CHILDREN

The most satisfactory way of giving vitamins to infants and children. Eight vitamins are present in a clear, water-miscible solution which mixes practically unnoticed with food and drinks.

Each 0·6 c.c. (30 drops from the dropper supplied) represents:

| | | | |
|------------------------|------------|------------------------|----------|
| Vitamin A | 5,000 I.U. | Vitamin B ₆ | 0.5 mgm. |
| Vitamin D | 1,000 I.U. | Pantothenic Acid | 1 mgm. |
| Vitamin B ₁ | 1 mgm. | Nicotinamide | 5 mgm. |
| Vitamin B ₂ | 0.4 mgm. | Vitamin C | 25 mgm. |

In dropper-bottles of 10 and 50 c.c.



PARKER, BAXTER & GOODMAN, WHITE &

HOUNSLOW, NEAR LONDON

Inc. L.S.4

Further information from any branch of LENNON LTD.

OESTROFORM B.D.H.

For the Treatment of Ovarian Insufficiency

Trade Mark

Oestroform retains an important position as the medicament of choice in most of the conditions attributable to ovarian hyposecretion.

Oestroform is perfectly tolerated by all patients and it is best administered by intramuscular injection. Administration therefore remains entirely under the control of the physician, and the success of treatment is not prejudiced by administration at the wrong period of the menstrual cycle nor by irregular or excessive administration by the patient herself.

Where necessary, additional forms of Oestroform are available for supplementary treatment—vaginal pessaries and tablets (oral).

Oestroform is the natural oestrogenic hormone standardised in terms of international benzoate units (solutions for injection) and in international units (pessaries and tablets).

Stocks of Oestroform are held by leading pharmacists throughout the Union, and full particulars are obtainable from

BRITISH DRUG HOUSES (SOUTH AFRICA) (PROPRIETARY) LTD.
123 Jeppe Street JOHANNESBURG

allergic conditions in the Indian population. Dr. Ordman suggested that doctors could assist him by sending him a wineglass of housedust, and a handful of the contents of the patient's mattress, cushions and pillows together with history of the patient's condition with special mention of the seasonal occurrence and if there was anything suggestive in the patient's physical environment.

The President expressed the sincere thanks of the Chair and of the Meeting to Dr. Ordman, and said he was sure that this appeal for co-operation would not go unheeded and that the Branch would be glad to arrange a meeting for him at some future date.

The President then said that it was a great pleasure to welcome Dr. Stanley White and expressed the sympathy of the Meeting at his place having landed him here 7½ hours late so that he had not been able to have a meal before coming to the Meeting. Dr. Broomberg realized what a unique opportunity it was to be addressed by a lecturer so very well known in Great Britain and who was Director of the European Clinical Investigation Department of one of the largest and oldest pharmaceutical manufacturers in the United Kingdom, viz. Parke, Davis and Co., a firm the lecturer had been connected with for the past 40 years. Continuing, the President said it was a particular pleasure and privilege to hear Dr. White and to learn of the advance in weapons to cure disease, especially the Antibiotics.

Dr. White stated that his subject was a review of the newer antibiotics, especially Chloromycetin. He prefaced his lecture by expressing his sincere thanks for the very cordial and warm welcome. Dr. White said that he had been associated with the Pathological Department of St. Mary's Hospital, London, for the past 25 years under Sir A. Fleming and his predecessor, Sir Almroth Wright, and that he was a founder member of the British Society of Allergists. The lecturer then showed an excellent sound film of about 20 minutes' duration, depicting the development and preparation of antibiotics from the early experiments of Fleming. The lecturer remarked that Viomycin was the latest antibiotic against the Mycobacterium of tuberculosis and that it had half the toxicity of Streptomycin. He also said that Chloromycetin had been synthesized on a practical basis and was known as Chloramphenicol. He stated that organisms apparently developed no resistance to the newer antibiotics, but that it was necessary to continue with them for five to 10 days after clinical recovery had been attained in order to prevent relapses. The speaker then dealt briefly with the more important conditions for which Chloromycetin was indicated:

Rickettsial infections, e.g. scrub typhus in Malaya, responded dramatically to Chloromycetin, a single dose apparently being sufficient.

Typhoid Fever: Here it had been found that the 'loading dose' was not required or advisable as it gave rise to circulatory collapse due to the release of large amounts of endotoxins. Treatment should be continued for 10-12 days after the temperature had fallen to normal. The response to a second course of treatment was even more dramatic. This was probably due to the body's defences coming into play. After the temperature had become normal the relapse rate was

remarkably reduced. However, Chloromycetin was ineffective in eradicating the chronic carrier.

Cholera was very susceptible to this drug which, owing to the extreme rapidity of the disease, was almost precluded from use in the treatment, but it was a powerful prophylactic.

Infantile Gastro-Enteritis: The dramatic effect of Chloromycetin was probably due to its action on a specific variety of *B. coli*. It was also effective in other forms of gastro-enteritis and in food poisoning.

Urinary Infections: Chloromycetin was very effective especially if given in conjunction with Penicillin and a sulpha drug.

Pertussis: The lecturer remarked that in the United Kingdom there were 1,000 deaths per annum. Haemorrhagic pertussis was very sensitive to Chloromycetin which must be given in adequate dosage, e.g. 100 mg. in Syrup of Lemon at night followed the next day by two small maintenance doses. This course should be repeated on five successive nights and days.

Influenza and Undulant Fever were also well treated with Chloromycetin.

Surgical Infections: Here, the speaker said, the therapeutic and prophylactic properties of Chloromycetin had not been explored.

Venereal Diseases: Chloromycetin was very effective *in vivo*, but not *in vitro*. It was difficult to account for this seeming anomaly.

Virus diseases due to the smaller viruses, e.g. variola, did not respond. *Mumps* was very favourably affected. In *trachoma* Chloromycetin was very effective, probably because it was the only antibiotic which could penetrate to the aqueous of the eye. It could be administered as eye drops in a ½% solution.

Amoebiasis: Aureomycin and Terramycin were more effective than Chloromycetin.

Pharmacology: Chloromycetin passed the placenta. It appeared in the spinal fluid at 50% of the concentration in the blood. Very small amounts appeared in the bile. Whilst Chloromycetin was essentially bacteriostatic, it was probably also bacteriocidal.

This drug interfered with carbohydrate metabolism and with various vitamins especially the B complex. Therefore, if Chloromycetin was to be given for longer than seven or 10 days, B complex should also be given.

It was generally considered that nature should be allowed to develop antibodies by the doctor not resorting immediately to Chloromycetin except in very acute conditions.

Questions: In replying to a question by Mr. Stafford Mayer, the lecturer said that Chloromycetin was hardly soluble in water, but freely in propylene glycol and that possibly a method might soon be found of rendering it reasonably soluble in water so that the drug could be given by injection.

Dr. Alan Taylor, with his usual charm of expression proposed a hearty vote of thanks to Dr. White. This was accorded with acclamation.

Dr. H. Grant Whyte then spoke of the appreciation and the great privilege of being addressed by Dr. Ordman and voiced the sincere thanks of the Branch. This was very warmly applauded by the audience.

THE BENEVOLENT FUND

Donations from payments made by the Transvaal Provincial Administration in respect of Honoraria:

| | | | | | | | |
|--------------------------------|--------|---|---|-------------------|--------|----|----|
| <i>Previously acknowledged</i> | £4,082 | 5 | 4 | Dr. O. Ochse | 20 | 0 | 0 |
| Dr. R. Krynaud | 154 | 0 | 0 | Dr. W. van Staden | 20 | 0 | 0 |
| Dr. R. Epstein | 77 | 0 | 0 | Dr. A. S. Boyd | 115 | 0 | 0 |
| Dr. R. Geerling | 154 | 0 | 0 | Dr. L. Herzenberg | 20 | 0 | 0 |
| Dr. A. I. Friedman | 20 | 0 | 0 | Dr. L. Staz | 115 | 0 | 0 |
| Dr. W. A. Kerr | 40 | 0 | 0 | Dr. A. H. Folb | 128 | 5 | 0 |
| Dr. C. Frost | 115 | 0 | 0 | Dr. M. Peskin | 115 | 0 | 0 |
| Dr. F. Reid | 115 | 0 | 0 | Dr. J. W. Gehle | 65 | 2 | 10 |
| Dr. W. Trubshaw | 115 | 0 | 0 | Dr. A. J. Rudolph | 77 | 0 | 0 |
| Dr. J. Edelstein | 154 | 0 | 0 | Dr. H. S. Shak | 25 | 0 | 0 |
| Dr. J. G. Berry | 20 | 0 | 0 | Dr. H. M. Barnett | 90 | 0 | 0 |
| Dr. S. Copans | 20 | 0 | 0 | Dr. A. L. Jackson | 77 | 0 | 0 |
| Dr. M. G. Meyers | 20 | 0 | 0 | Dr. H. Haden | 154 | 0 | 0 |
| | | | | Dr. Gus Lange | 10 | 10 | 0 |
| | | | | | £6,118 | 3 | 2 |

4 August 1951

The following contributions to the Benevolent Fund during June 1951, are gratefully acknowledged.

Votive Cards; In Memory of:

Mrs. A. K. Marais by Dr. F. O. Fehrsen
Dr. M. Thomas by Dr. L. Gordon
Mrs. Martin by Dr. F. B. Proksch.

Total Amount Received from Votive Cards: 2 10 6

Services Rendered to:

Dr. R. L. Retief by Dr. D. J. Roux
Dr. K. Sartorius by Drs. E. Schultz, J. C. Jurgens
and C. P. M. Neethling
Dr. G. P. de Kock by Dr. V. Brink, Mr. L. B.
Goldschmidt, Drs. H. Bell and P. Smuts.

Total Amount Received from Services
Rendered: 16 7 0

Donations:

| | |
|--|----------|
| Dr. J. F. van der Merwe | 8 0 |
| Dr. M. E. Meyrick | 10 6 |
| Dr. P. S. Meyrick | 10 6 |
| Dr. S. Disler | 10 6 |
| Dr. I. M. Hurwitz | 9 0 |
| Dr. J. N. Ahlsohn | 10 6 |
| Dr. J. C. Weideman | 10 6 |
| Dr. J. R. Chacey | 10 6 |
| Dr. S. H. Daneele | 10 6 |
| Dr. A. Greenberg | 10 6 |
| Dr. A. C. Boonzaier | 3 6 |
| Dr. P. H. Marks | 3 3 0 |
| Dr. D. J. Serfontein | 5 5 0 |
| The Campbell Cup Gold Competition | 4 5 0 |
| The Border Branch Members | 14 1 9 |
| The Southern Transvaal Medical Golfing Society | 21 0 0 |
| | £71 16 9 |

PASSING EVENTS

Dr. S. Berman of Cape Town has retired from practice as a specialist in Neurology and Psychiatry on his assumption of duty as Head of the Department of Neuro-Psychiatry at Groote Schuur Hospital, Observatory, C.P.

* * * * *

Dr. and Mrs. Jack Polonsky of Johannesburg have returned from a two-months' visit overseas.

Johannes Franciscus Schoevers.
Edward Joseph Stewart.
Christoffel van Wyk van der Colf.
Amor Bindemann van Zyl.
Michael Joseph Weiman.
Walter Wardlaw Worthington.
Dorothy May Wreford-Smith.

UNIVERSITY OF CAPE TOWN MEDICAL GRADUATES

DEGREE OF DOCTOR OF MEDICINE

Maurice Nellen, M.B., Ch.B. (Subject of Thesis: *Some Problems in Cardiology and an attempt to illustrate them by Cardiac Catheterisation*)
Brian Bronte Stewart, M.B., Ch.B. (Subject of Thesis: *Scurvy and its Anaemia*)

DEGREE OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY

Nazli Behardien.
Israel Brener.
Hugo Hendrik Broodryk.
Aikaterine Cavadas.
Abraham Johannes de Klerk.
Meyer de Kock.
Norman Edward Dold.
Geoffrey Mark Garrett.
Nathan Geflen.
Marthinus Christoffel Gerber.
Allan Peter Gie.
Alfred William Husband.
Betty McCarthy.
Margaret Alice Elaine Midgley.
Lourens Albertus Petrus Anderson Munnik.
George Trevor Nurse.

EMERGENCY MEDICINE DEPOTS

The attention of medical practitioners in Johannesburg and the Reef is drawn to the fact that the main Depot at Africa House, Rissik Street, is open on weekdays from 6 p.m. to 8 a.m. and during weekends from Saturdays, 2 p.m. to Mondays 8 a.m.

The details of the hours of attendance at the various Branches will be found in the B.P.D. (S.A.) (Pty.) Limited advertisement of the issue of 21 July as well as in the current issue of the *Journal*.

* * * * *

The *Medical Times* (Vol. 79, No. 6, June 1951) draws attention in an Editorial to the fact that 'on April 13 The Associated Press reported that an escaped mental hospital patient, impersonating a Maine State Senator, addressed the Ohio House and Senate on April 11, and also, on the same day, sat in on a session of the Senate Taxation Committee. He was finally identified as one Paul Snow, of Biddeford, Maine. His remarks were said to have deeply stirred the legislators.

While this episode was presented by the press as news, may it not, as a matter of fact represent a frequent occurrence? Do not the weird performances of our legislators, especially the Federal breed, suggest that participation of mental hospital "delegates" happens oftener than has been hitherto suspected? The inference seems inescapable?

IN DIE VERBYGAAN

GESLAAGDE KANDIDATE JUNIE 1951: UNIVERSITEIT VAN PRETORIA

Bierman, Johannes Izak.
Brits, Josefus Philippus Albertus.
Cronje, Heinrich Carlyle.
De Beer, Roxane.
De Kock, Jesaias Alexander.
Ferreira, Ignatius Philippus Huntly.
Gous, Dawid Simon.
Grobbelaar, Pieter Schalk.
Kalmyn, Margaretha Hendrina Elisabeth.
Kolbé, Marius Hendrikus Gysbertus.
Kruger, Jan Hendrik.

Kumin, David.
Olivier, Wilhelm Johan.
Oosthuysen, Jacobus Arnoldus.
Rabie, Christiaan Jacobus.
Steyn, Hermanus Gerbrand.
Theron, Johan Jurgens.
Van Duyn, John.
Van Niekerk, Catharina Elizabeth.
Verster, Ryno.
Viljoen, David Roux.

REVIEWS OF BOOKS

LOBOTOMY

Studies in Lobotomy. Edited by Milton Greenblatt, M.D. (Pp. 495 + x. With illustrations and tables. 63s.) London: William Heinemann Medical Books Ltd. 1951.

Contents: Part I: Clinical Considerations. 1. Introduction. 2. Psychosurgery: A Review of Recent Literature. 3. Evolution of Psychosurgery Technique. 4. Technique and Complications of the Standard Unilateral Lobotomy. 5. Postoperative Behaviour Changes. Procedure and Problems. 7. One to Four Year Follow-up of 205 Cases of Bilateral Prefrontal Lobotomy. 8. The Lobotomized Patient during the First Year at Home (Social Problems in 35 cases). 9. Sexual Behaviour after Lobotomy. 10. Problems in Rehabilitation of Patients after Lobotomy. 11. The Results of Unilateral and Bimodal Lobotomy. A Pilot Study. 12. Illustrative Cases of Lobotomy. Part II: Special Studies: 13. Anatomical Study of Lobotomy. 14. Cerebro-spinal Fluid Changes after Unilateral and Prefrontal Lobotomy. 15. Relation of Frontal Lobe to Autonomic Nervous System. 16. The Effect of Lobotomy and of Electrical Stimulation of the Orbital Surface of Frontal Lobes upon Respiration and Blood Pressure in Man. 17. Lobotomy and Urinary Bladder. 18. Skin Temperature Changes after Unilateral and Bilateral Prefrontal Lobotomy. 19. Measurement of Motor Withdrawal Reaction in Patients following Frontal Lobotomy. 20. Lobotomy for the Relief of Intractable Pain. 21. Electroneurographographic and Clinical Effect of Prefrontal Lobotomy with Consideration of Postlobotomy Convulsive Seizures. 22. Psychometric Changes following Lobotomy. 23. Application of a Sociometric Technique to the Study of Lobotomized Patients. 24. Occupational Therapy for Lobotomy Cases. Part III: Summary. Index.

Lobotomy has been the subject of a spate of comment and discussion in recent months, much of it ill-advised and prejudiced, and a great deal of it emanating from the ignorant and the unknowledgable. This book should be required reading, not only for the psychiatrist whose function it is to advise the procedure and for the neurosurgeon who has to carry it out, but also for all those who deem it necessary to introduce legislative fetters into the field of medical therapy.

The book is a thoroughly complete study of 205 cases subjected to psychosurgery, and though the editor had a far greater number available, he restricted himself to those patients whom he and his collaborators could follow up for a 1-4 year period after the operation. Careful clinical studies, all the available ancillary methods of investigation (including skilled social surveys) provide a most elaborate and comprehensive account of these patients. There is no attempt here to prove a thesis, to accentuate certain aspects and to minimize others. It is what every scientific investigation into a special therapeutic procedure should be, a factual, carefully annotated and over-all survey of the subject in its every particular, with the results presented without bias and in a manner thoroughly acceptable to every careful reader. Everyone free from prejudice will accept the editor's conclusion that the operation 'has a potentiality for producing benefits as measured in human happiness and contentment . . . lobotomy will lead to some degree of defect but, at the same time, it is likely to produce results which are very beneficial from the standpoint of the total behaviour. One must balance the possible assets against the possible liabilities'. All cases must be most carefully selected and this study will be a useful guide to those whose experience is more limited.

This is an excellently produced volume, with good printing on good paper, an index and a bibliography.

TOXICOLOGY

Poisons—Their Isolation and Identification. Third Edition. By Frank Bamford, B.Sc. (Pp. 316 + viii. With 23 illustrations. 25s.) London: J. & A. Churchill Limited. 1951.

Contents: 1. Introduction: Organization and Equipment. 2. Classification of Poisons. 3. Volatile Poisons. 4. Common Metallic Poisons. 5. Other Metals. 6. Corrosive Acids and Alkalies. 7. The Isolation of Non-Volatile Organic Poisons. 8. Non-Basic Organic Poisons. 9. Systematic Testing for Non-Basic Poisons. 10. Non-Volatile Basic Organic Poisons (Alkaloids). 11. A Systematic Scheme for the Identification of Alkaloids. 12. Miscellaneous Poisons. 13. Drugs of Addiction. Index.

It is always a sound recommendation when an author bases his writing on his own personal experience. This is particularly true in the field of toxicology. The fact that a third edition was rendered necessary in the short space of 10 years is silent and eloquent testimony of the practical usefulness which the laboratory worker has found this volume.

In preparing the third edition Dr. C. P. Stewart has tried to preserve the outstanding characteristic of the book, viz. 'that of describing methods known to the writer, by personal experience, to be reliable'.

There has been some re-arrangement of the matter, dictated by the principles of logic. Important alterations have been made to the section on the barbiturates and a short suggestive report on the anti-histaminic drugs has been included. The section on the determination of ethyl alcohol sets out in full Widmark's micro-methods. This is particularly useful, as this technique is not readily accessible in the English literature, and because it is likely that the Widmark process will for medico-legal purposes, supplant other methods on the living.

Clearly printed and attractively produced, the volume is a mine of useful information.

KING'S MEN

An Addendum to King's and Some King's Men (London): Being an added record of King's College Hospital and of King's College Hospital Medical School to 5 July 1948. By H. Willoughby Lyle, M.D., F.R.C.S. (Pp. 211 + viii. With six illustrations. 25s.) London: New York: Toronto: Oxford University Press. 1950.

It is appropriate that the history of this famous hospital should be brought up to the day of 5 July 1948, when its existence as a voluntary teaching hospital ceased because it became a nationalized part of the National Health Service. The present volume is an addendum which takes the story to 5 July 1948, when the great social experiment began.

The volume will be of great interest to all former King's men.

LUMBAR PUNCTURE AND SPINAL ANALGESIA

Lumbar Puncture and Spinal Analgesia. By R. R. Macintosh, M.A., D.M., F.R.C.S. (Edin.), D.A. (Pp. 149 + viii. With 111 illustrations. 21s.) Edinburgh: E. & S. Livingstone Ltd. 1951.

Contents: 1. Early History. 2. Anatomy. 3. Cerebro-Spinal Fluid. 4. Illustrations. 5. Sterilization. 6. Technique of Lumbar Puncture. 7. Distribution of Analgesic Solution. 8. Headache. 9. Do's, Don'ts, and Doubts.

Since the introduction of Curare in recent years, the popularity of spinal anaesthesia and the indications for its use have undergone a very profound change. It is virtually never used in upper abdominal surgery, and its use is mainly limited to certain selected types of urological rectal or lower abdominal operations.

Nevertheless, Professor Macintosh's publication will be heartily welcomed by all practising anaesthetists as an authoritative and illuminating enunciation of all aspects of spinal anaesthesia, and will help materially towards a more rational explanation of the difficulties which confront both the anaesthetist and the physicians who practice lumbar puncture.

The early chapters devoted to the anatomy of the lumbar vertebrae and the physiology of the cerebrospinal fluid, are deserving of close study. A clear understanding of these fundamentals will go a long way towards making the operation of a lumbar puncture an interesting instead of merely a mechanical procedure, and explains why a 'dry tap' is due to a failure of technique.

The mode of action of Nupercaine is very well illustrated, and the importance of avoiding anaesthesia in spinal anaesthesia is constantly stressed.

A chapter devoted to *Spinal Headaches* merits careful reading, and justifies the old adage that 'prevention is better than cure'. The author warns the reader against the current practice of immersing the glass ampoules of the anaesthetic solution in either alcohol or spirit, and emphasis is laid upon the importance of strict asepsis and the use of fine spinal needles.

The indications and contra-indications for spinal anaesthesia are somewhat imperfectly defined, and could have been amplified with advantage to the reader.

This publication, which incidentally is liberally illustrated with excellent drawings and photographs, can be heartily recommended to anaesthetists and physicians alike, with the confidence that a careful study of its contents will be amply rewarded.

DERMATOLOGY AND SYPHILIOLOGY 1950

The 1950 Year Book of Dermatology and Syphilology.
Edited by M. B. Sulzberger, M.D. and R. I. Baer, M.D.
(Pp. 497. With 67 figures. \$5.00.) Chicago: The Year
Book Publishers Inc. 1951.

Contents: Introduction. Treatment of Pyoderma (Common Pus-forming Infections of the Skin). 1. Treatment and Prevention (Exclusive of Venereal Diseases). 2. X-ray and Other Physical Therapy. 3. Eczematous Dermatitis and Urticaria (Allergic and Nonallergic). Allergy. 4. Drug Erupptions (Allergic and Nonallergic). 5. Miscellaneous Dermatogenous Dermatoses. 6. Other Dermatoses. 7. Cancer. 8. Papillomavirus. 9. Herpes Simplex. 10. Mycotic Fungus. 11. Venereal Diseases (Exclusive of Gonorrhoea). A. Syphilis. B. Venereal Diseases other than Syphilis and Gonorrhoea. 12. Investigative Studies. A. Dermatologic. B. Venereal Diseases. 13. Miscellaneous.

This well-known annual production provides a critical selection

of abstracts of articles of dermatological interest in medical journals throughout the world. The concise information enables the reader to get a clear and up-to-date picture of advances in dermatological knowledge. Editorial footnotes evaluating the substance of each article are examples of condensed critical judgment and instruction.

The Editors state that in 1950 the advances in the study of the ACTH and Cortisone group overshadow all other items of progress in the dermatological field. They claim that the study of these and allied hormones promise more for dermatology than the vitamins, the sulphonamides and the antibiotics combined. The dangers are stressed and an appeal is made 'to exercise the skills and restraint which these potent new agents demand'.

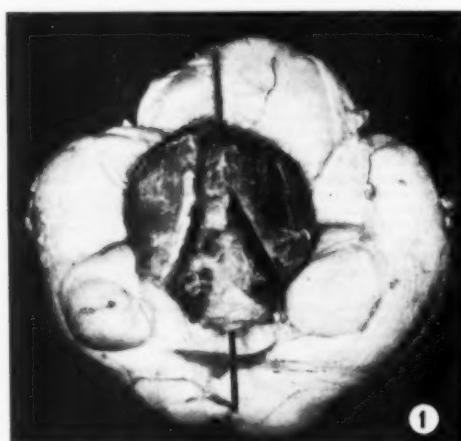
As usual, a long essay is devoted to some relatively common dermatological problem. This year's article deals with treatment of pus-forming infections of the skin. No general practitioner or specialist should miss reading this instructive work.

All dermatologists must realize the value of these annuals. The perusal of this book is recommended to practitioners interested in dermatology.

CORRESPONDENCE

LIPOMA OF THE NECK

To the Editor: Emma Phakati, a Bantu female aged 52 years, was admitted to the McCord Zulu Hospital on 11 May 1951. She complained of a growth in the front part of the neck.



History. The swelling started six years before and had steadily increased in size. The patient was quite comfortable during the day, but suffered from dyspnoea at night when lying down. She complained of hoarseness but had no difficulty in swallowing. She had lost some weight in recent months. The lump gave her no pain. On questioning she stated that many people in her district had similar growths in the neck, including her daughter and granddaughter, but these others were not troubled.

On Examination. An elderly female, slightly emaciated, she appeared quite comfortable. Pulse, 80 per minute and regular. Temperature 98 F.

There was a uniform swelling of the neck affecting both

anterior and posterior triangles of either side. The mass appeared to move with swallowing, was soft but not fluctuant. The isthmus of the thyroid was clearly defined and enlarged. Transillumination was negative as was the rest of the examination.

Diagnosis of a soft colloid goitre was made. The patient was prepared for operation.

Premedication. Nembutal gr. ½ the previous night and Nembutal gr. 3 three hours before the operation. Hyoscine Co. B. ½ hour before the operation was given.

Shortly after the Hyoscine Co. B. the patient's breathing became stertorous and she died within 15 minutes.

Post Mortem Findings. The lipoma shown in Fig. 1 lay between the trachea and the larynx and the vertebral column and split over into the posterior triangles of the neck.

The case is reported because of the unusual location of the lipoma and because of the fact that none of the numerous doctors who had seen the case suggested a lipoma as an alternative diagnosis to the colloid goitre.

McCord Zulu Hospital,
Durban.
7 June 1951.

Alan B. Taylor.

MEDICAL ARTICLES AND THE LAY PRESS

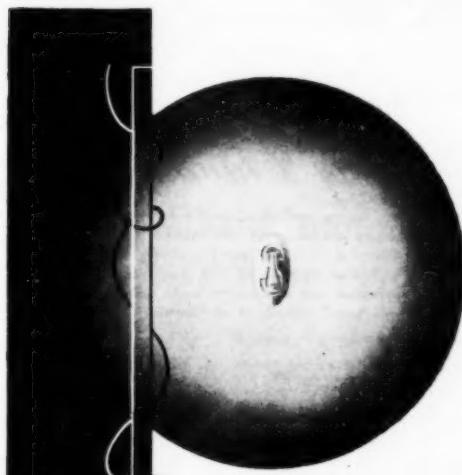
To the Editor: Is it not possible for something to be done to stop the publication of 'Medical Articles' appearing in the lay press?

A little knowledge is dangerous and never more so than in our subject. I am sure that every one of us has come up against a patient, or more often so his relatives, primed with obstructionist theories evolved from press articles. Nothing is more annoying to the doctor than to have his clear line of duty hindered by unnecessary and irritating nonsense, or to have a patient demanding treatments which are useless and sometimes dangerous, and which have been extolled in the popular press.

One would like to draw particular attention to 'whooping cough injections in polio epidemics, vitamin E in heart disease, etc.'

H. Rabinowitz.

62 Ninth Avenue,
Highlands North,
Johannesburg.
4 July 1951.



Schering

is pleased to announce that

an important problem of

HORMONE THERAPY

has been solved

by

BUCCAL TABLETS

Schering Buccal Tablets permit intensive hormone therapy without injections. The uniquely efficient absorption of Buccal Tablets through the oral mucosa is due to the remarkable new solid solvent, POLYHYDROL, in which the hormones are incorporated.

IN ADRENAL INSUFFICIENCY : **CORTATE** (Desoxycorticosterone Acetate) Buccal Tablets 2 mg., 30's

IN MALE HYPOGONADISM : **ORETON** (Testosterone Propionate) Buccal Tablets 2.5 mg. & 5 mg., 30's and 100's

IN HABITUAL ABORTION : **PRANONE** (Progesterone) Buccal Tablets 10 mg., 30's and 100's

IN THE MENOPAUSAL SYNDROME : **PROFOLIOL** (Oestradiol) Buccal Tablets 0.25 mg., 30's and 100's

MANUFACTURED IN THE UNION OF SOUTH AFRICA BY
SCHERAG (PTY.) LIMITED JOHANNESBURG
 FOR AND UNDER THE FORMULA AND TECHNICAL SUPERVISION OF
Schering CORPORATION • BLOOMFIELD, N.J.





**AN APPROVED METHOD OF
Family Planning**

GYNOMIN
THE SCIENTIFICALLY BALANCED, ANTISEPTIC AND DEODORANT CONTRACEPTIVE TABLET

The average weight of each tablet when packed is 1.2 grams and contains w/w.

FORMULA : Sodium Bicarb. B.P. 12.0; Acid. Tartaric B.P. 10.5; p-Toluenesulphonchloroanide B.P. 1.1; Excipients Lactose B.P. and Starch B.P. ad. 100.0; Perfume q.s.

Samples and medical literature sent on request.

Manufactured by
COATES & COOPER LTD
PYRAMID WORKS • WEST DRAYTON • MIDDLESEX • ENGLAND

Distributed by:
LENNON LTD., Cape Town and branches. / SOUTH AFRICAN DRUGGISTS, LTD., Johannesburg




MEDICAL Science has been built up from many years of careful research.
Printing owes its modern developments to years of careful research and trial. We are anxious to place the benefit of these developments at your disposal, consult us.

"Print and Progress with the Times"

CAPE TOWN
Sales Office: St. George's St.
P.O. Box 11. Phone 2-9831

DURBAN
National Bank Chambers, 341 West St. P.O. Box 2082. Phone 2-0054

JOHANNESBURG
222 Loveday House, Marshall St.
P.O. Box 3021. Phone 33-9176

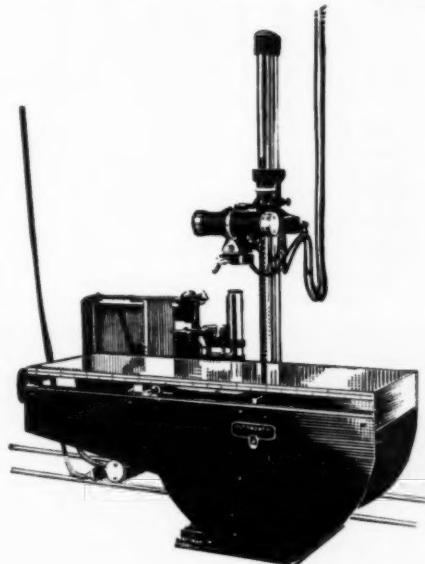
PORT ELIZABETH
South-West House, 109 Main St. P.O. Box 764. Phone 11-2010

CAPE TIMES LIMITED

WATSON

"AUTONOME III"

*A new motor-driven x-ray table
which satisfies every need*



For x-ray departments in which the highest possible standard of radiographic efficiency is required, the "Autonome III"—Watson's completely new motor-driven tilting table—is the equipment of choice.

Many valuable new features are incorporated including, "Equipoise" Screen Mounting, fully automatic Serial Changer, all controls accessible from working side, adjustable Tube Diaphragm, complete x-ray protection.

Write for particulars of this, and other modern Watson x-ray equipment as used in leading hospitals throughout the world.

WATSON

British Made

X-RAY EQUIPMENT

THE BRITISH GENERAL ELECTRIC CO., LTD.

Box 2496, Johannesburg
Box 1327, Cape Town

Box 42, Port Elizabeth
Box 922, Durban
Box 914, Bloemfontein

Box 1070, Bulawayo
Box 845, Salisbury

Representing WATSON & SONS (ELECTRO-MEDICAL) LIMITED



JELONET PARAFFIN GAUZE DRESSING (A PETROLEUM JELLY GAUZE)

Enquiries:
SMITH & NEPHEW (PTY.) LTD.,
P.O. BOX 2347, DURBAN.

JELONET is a non-adhesive, open-mesh dressing evenly impregnated with medicated soft paraffin containing 1.225% Balsam of Peru. It is sterilized ready for use. When used as a dressing for open wounds, skin-grafts or burns its unique ventilating character provides optimum conditions for the delicate epithelium or transplanted graft. Jelonet is obtainable in tins containing 36 cut pieces ($3\frac{1}{4}'' \times 3\frac{3}{8}''$) or 8 yd. continuous strips.

Made in England by T. J. SMITH & NEPHEW LTD., HULL, ENGLAND

Ergoapiol-(Smith)

A Menstrual Regulator . . .

When the periods are irregular, due to constitutional causes, ERGOAPIOL (Smith) is a reliable prescription. Containing apiol (M.H.S. special) together with ergot and oil of sabin of the highest quality, this preparation effectively stimulates uterine tone and controls menstrual and postpartum bleeding.

In cases of *Menorrhagia*, *Dysmenorrhea*, *Menorrhagia* and *Metrorrhagia*, Ergoapiol serves

as a good uterine tonic and hemostatic. Valuable in obstetrics after delivery of the child.

DOSAGE: 1 to 2 capsules 3 or 4 times daily. Supplied only in packages of 20 capsules. Literature on request.

As a safeguard against imposition the letters MHS are embossed on the inner surface of each capsule, visible only when the capsule is cut in half at seam as shown.

MARTIN H. SMITH COMPANY
NEW YORK, N.Y.



**Quick urine-sugar testing
anyplace—anytime
with simple-to-use pocket set**

CLINITEST
BRAND

EVERYTHING needed for reliable urine-sugar analysis in one set! Tablets comprise all reagents required for copper reduction test. Clinitest Reagent Tablets are based on the same principle as the Benedict Test. No external heating is required—all necessary heat is generated by the tablet.

Simply drop one Clinitest Reagent Tablet into test tube containing diluted urine; wait for reaction, then compare with color chart. Ideal for doctor or patient alike—contact our representative for literature.



Professional Pharmaceuticals Ltd.,
Campaign House,
19 Ramsay Street, P.O. Box 2515
Johannesburg, South Africa.



AMES COMPANY, INC.
Elkhart, Indiana, U. S. A.

51-7E

**THE IDEAL
SEDATIVE
IN ALL NERVOUS AFFECTIONS**

Elixir Gabail combines the sedative action of Bromide and Chloral Hydrate with the nervine and anti-spasmodic Valerianate, the disagreeable odour and flavour of the Valerian having been completely removed without impairing its medicinal value.

ELIXIR GABAIL

Dosage: One tablespoonful in water twice or thrice daily.

Supplied in bottles of 8 oz.

Literature and sample on request

PHARMACAL PRODUCTS (PTY.) LTD.,
BOX 784, PORT ELIZABETH

South African Agents for Gabail Ltd., London

"C"



| | | | |
|--------------------------|---|---|--------|
| Intestinal Gland Extract | - | - | 0gr.05 |
| Biliary Extract | - | - | 0gr.10 |
| Aloe Ferox | - | - | 0gr.01 |
| Agar Agar | - | - | 0gr.05 |
| Lactic Ferment | - | - | 0gr.05 |

Initial daily dose: 2 tablets

A PRODUCT OF
CONTINENTAL LABORATORIES
LIMITED

101, GREAT RUSSELL STREET, LONDON, W.C.1.

LAXATIVES MUST HAVE TWO ESSENTIAL CHARACTERISTICS

1. They must be biological, i.e., they must accord with and imitate in their action the natural physiological processes of the intestine.
2. They must be capable of educating the intestine, so that the habit of a laxative is not formed and so that the intestine can function unaided when bowel adjustment is attained.

TAXOL HAS BOTH THESE ADVANTAGES

Descriptive literature or samples will be sent free of charge to Members of the Medical Profession on application to

LENNON LTD.
P.O. Box 8389, JOHANNESBURG

You have the

Speed
you need with this

RADIOGRAPHIC RULE OF THREE

The SPEED you need is yours when film, screens, and chemicals bear the Kodak label. Then, because these products are made to work together, the radiographer is assured the utmost in speed in every step, from initial exposure to final processing . . . and the maximum diagnostic value.

KODAK PRODUCTS FOR RADIOGRAPHY

Blue Brand and 'Kodirex' X-ray Films . . . 'Flurodak' and 'Fluropan' Films for mass miniature radiography . . . High Definition and Ultra Speed X-ray Intensifying Screens . . . Exposure Holders . . . X-ray Developers, Developer-Replenishers and Fixers . . . Processing Units and Drying Cabinets . . . Safelight Lamps . . . Hangers, Thermometers . . . Film Corner Cutters . . . Illuminators.

KODAK (South Africa) Limited

CAPE TOWN · JOHANNESBURG · DURBAN

Use 'KODAK'
X-RAY FILM

Expose with
'KODAK' SCREENS

3 Process with
'KODAK' CHEMICALS

'KODAK' is a registered trade mark

ASPIRIN

is an acidic substance
sparingly soluble.

DISPRIN

is soluble, stable, substantially
neutral—and palatable.

The reasons for preferring calcium aspirin to aspirin lie chiefly in the fact that it is a neutral, soluble and bland compound, whereas aspirin is acidic, sparingly soluble and may act as a gastric irritant.

But calcium aspirin has a defect of its own—chemical instability; and in consequence attempts to manufacture it in the form of tablets that could be depended upon to remain free of nauseous breakdown products, under reasonable conditions of storage, have hitherto met with little success. These difficulties have now been overcome. Disprin, a stable, tablet preparation, readily dissolves to yield a palatable solution of calcium aspirin that can be prescribed in all conditions in which acetylsalicylate administration is indicated.



DISPRIN

REGD.

SUBSTANTIALLY NEUTRAL
STABLE
SOLUBLE
PALATABLE

Made by the Manufacturers of "Dettol"

Clinical sample and literature supplied on application.
Special hospital pack . . . prices on application.

RECKITT & COLMAN (AFRICA) LTD. • P.O. BOX 1097 • CAPE TOWN

XEBB/2/81/SA/4

NEW TEXTBOOKS

for the

HIGHER EXAMINATIONS

This new series of textbooks combines brevity with clarity and accuracy. No padding. No space wasted on inessentials. Specially written for candidates preparing for the higher Examinations.

HANDBOOK OF MEDICINE for Final Year Students
4th Edition. By G. F. WALKER, M.D., M.R.C.P., D.C.H. Pp. 305. Price 25s. net.
Previous editions have met with an enthusiastic reception. Valuable for M.R.C.P. candidates.

'Whatever hundreds of Medical books you have, get this one.'—S.A. Medical Journal.

'To have covered such an enormous field in such a handy little volume is a feat of which Dr. Walker may feel proud.'—Cambridge U. Med. Magazine.

HANDBOOK OF CHILD HEALTH
By AUSTIN FURNISS, L.R.C.S., L.R.C.P., D.P.H., L.D.S. Valuable for D.C.H. and D.P.H. candidates. Price 25s. net.

'Dr. Furniss has written a useful little book. Students working for the D.P.H. and D.C.H. will find this a helpful volume.'—British Medical Journal.

HANDBOOK OF MIDWIFERY
By MARGARET PUXON, M.D., M.R.C.O.G. Pp. 326. Price 25s. net.

'Can be thoroughly recommended as a suitable guide to modern obstetric practice.'—Post Graduate Medical Journal.

'Presents a practical manual—real merits of completeness and sound practicality—the text is up to date.'—British Medical Journal.

HANDBOOK OF VENEREAL INFECTIONS
By R. GRENVILLE MATHERS, M.A., M.D.(Cantab.), F.R.F.P.S., Ph.D. Pp. 116. Price 12s. 6d. net.

'Remarkably successful in getting nearly all that students and practitioners require into fewer than 120 pages.'—British Medical Journal.

HANDBOOK OF OPHTHALMOLOGY
By J. H. AUSTIN, D.O.(Oxon.), D.O.M.S., R.C.S. Just published. Pp. 344. Price 30s. net. Specially written for candidates preparing for the D.O.M.S. and D.O. (Oxon.).

'Contains a wealth of information in short compass.'—Guy's Hosp. Gazette.

'An excellent book for the ophthalmic House Surgeon.'—Lond. Hosp. Gazette.

HANDBOOK OF DENTAL SURGERY & PATHOLOGY
By A. E. PERKINS, L.D.S., R.C.S., H.D.D.(Edin.). Just published. Pp. 430. Price 30s. net. An indispensable book for the F.D.S., H.D.D. and other higher dental Examinations.

'The work is valuable to dental students and practitioners both for examination purposes and for reference.'—U.C.S. Magazine.

HANDBOOK OF PSYCHOLOGY
By J. H. EWEN, F.R.C.P., D.P.M. Just published. Pp. 215. Specially written for the D.P.M. Examinations. Price 25s. net.

HANDBOOK OF GYNAECOLOGY
By TREVOR BAYNES, M.D., F.R.C.S., M.R.C.O.G. Price 15s. net.

Order now from all Medical Booksellers or direct from the Publishers:

SYLVIRO PUBLICATIONS LTD.

19 WELBECK STREET, LONDON, W.I.

Second Century coming up!



For more than a Hundred years Petersen have been producing South African medical requirements and are still abreast of modern therapeutic trends.

PETERPHYLLIN TABLETS

(Theophylline - Ethylenediamine) in TWO strengths—

Gr. 1½ and Gr. 3. Indicated as a diuretic in cardiac and renal oedema, eclampsia, angina and in cardiac asthma.

100's and 500's

Manufactured in South Africa by



Box 38 CAPE TOWN

Established 1842

Box 5992 JOHANNESBURG

EDWARD ARNOLD & CO.

To be published in September

MUIR'S TEXTBOOK OF PATHOLOGY

Sixth Edition. Revised by D. F. CAPPELL, F.R.S., M.D., Professor of Pathology, The University, Glasgow. xx - 1090 pages. 636 illustrations. 50s. net.

This well-known students' textbook has been completely revised, the type reset and many new illustrations added. The new edition will undoubtedly maintain the high standard set by previous editions.

MOSQUITO BEHAVIOUR AND MALARIA CONTROL IN THE TROPICS

By R. C. MUIRHEAD-THOMSON, D.Sc. 240 pages, 38 illustrations. Ready September. 30s. net.

This book will be of interest to Medical Officers of Health and Sanitary Engineers in the tropics, also doctors in the Colonial Medical Service.

SAVILL'S SYSTEM OF CLINICAL MEDICINE

Revised and edited by E. P. WARNER, M.D., F.R.C.P. xxviii - 1200 pages, 200 illustrations and 7 plates. 35s. net.

"This is a book we have consistently recommended from its first appearance and we shall certainly continue to do so."—*Medical World*.

VIRUS AND RICKETTSIAL DISEASES

By S. P. BEDSON, M.D., F.R.C.P., F.R.S., A. W. DOWNIE, M.D., D.Sc., F. O. MacCALLUM, M.D., C. H. STUART-HARRIS, M.D., F.R.C.P. viii + 383 pages, 33 illustrations. 24s. net.

"To the pathologist and medical officer of health the book will be invaluable . . ."—*Clinical Journal*.

CLINICAL EXAMINATION OF PATIENTS

By J. FORBES, M.D., and W. N. MANN, M.D., F.R.C.P. viii - 323 pages, 60 illustrations, 4 plates. 18s. net.

"The book is eminently readable . . . It may be most highly recommended and we do not hesitate to say so."—*The Practitioner*.

MENTAL HEALTH

A Practical Guide to Disorders of the Mind. By J. H. EWEN, F.R.C.P., D.P.M. 266 pages. 12s. 6d. net.

"A neat, well-integrated textbook authoritatively written, which should become extremely popular."—*Middlesex Hospital Journal*.

FORENSIC MEDICINE

By KEITH SIMPSON, M.D. viii - 335 pages, 114 illustrations, 2 coloured plates. 16s. net.

"A book which it is a pleasure to read . . . precisely what the student and newly qualified man first want to know."—*Medical Legal and Criminological Review*.

* Prices are Sterling.

41 MADDOX ST., LONDON, W.I., ENGLAND



GOOD HABIT PARTNERS

With the accurate timepiece of science there comes, not more time but less leisure, and—all too often—more emotional disorders and functional discord, with inevitable constipation. The physician's aim is always to re-establish in his patient the regular harmony of healthy habit patterns : Agarol[®] assists him. Phenolphthalein gives the necessary stimulation : the hydrophilic properties of Agarol counter excessive absorption of moisture in the large bowel and rectum; the colloidal agar gel in Agarol supplements the natural intestinal lubricant ; at the same time Agarol provides a highly emulsified mineral oil which mixes readily with the intestinal contents.

AGAROL WARNER

Supplied in 6 and 14oz. bottles.

WM. R. WARNER & CO. (PTY) LTD., 6-10 Scarle Street, Capetown.

109 Es

ANÆSTHETIC ETHER

Manufactured by
THE NATAL CANE BY-PRODUCTS LTD.
OF MERE BANK

Guaranteed to conform to the requirements of the 1948 British Pharmacopœia and the Specification of the South African Bureau of Standards. Equal to the finest imported Ether.

In cases, each containing 12 x 1 lb. Amber Coloured Bottles, similar to those used in Europe.

For further information please write to the selling Agents

C. G. SMITH & CO. LTD.
301 Smith Street, P.O. Box 43, Durban

Bert Mendelsohn (Pty) Ltd.,
P.O. Box 565, Johannesburg.

C. G. Smith & Co., Ltd.,
P.O. Box 1314, Cape Town.

Courlanders' Agencies,
P.O. Box 352, East London.

For All Surgical Requirements

including

- Davis and Geck Sutures
- Surgicraft Suture Needles
- Scialytic Shadowless Theatre Lights
- Optulle and Calgitex Surgical Dressings
- Sterling Rubber Gloves
- Zeal's Thermometers
- S.E.S. Sterilizers
- 'Lawson Tait' Bedsteads
- Eldorado Radium and Accessories
- 'Thackray' Surgical Instruments and Hospital Equipment

consult

Chas. F. Thackray
MAJ (Pty) Ltd.

301-303 Boston House,
Strand Street,
Cape Town,
P.O. Box 816.

23 Orion House,
235 Bree Street,
Johannesburg,
P.O. Box 2726.

The Medical Association of South Africa Die Mediese Vereniging van Suid-Afrika

AGENCY DEPARTMENT : AGENTS KAP AFDELING

: CAPE TOWN : KAAPSTAD

Medical House, P.O. Box 643, Cape Town. Telephone 2-6177
Mediese Huis, Postbus 643, Kaapstad. Telefoon 2-6177

PRAKTYKE TE KOOP : PRACTICES FOR SALE

(706) Suidwestelike Kaapland naby kus. D.S. aanstelling. Geen opposisie. Premie verlang ongeveer £750. Paaimente kan gerealiseer word. Huisvesting beskikbaar. Goeie kans vir uitbreiding.

(746) Large dispensing practice, mainly non-European. Average annual cash receipts approx. £5,200. £5,500 required for premium, drugs and surgery furniture. Details on application.
(350) Eastern Cape hospital town. Total gross receipts for preceding 13 months £3,700. One appointment. Premium of £2,000 includes drugs, surgery furniture, fittings, etc. House for sale at £3,000. Large bond available. £700 rebate if appointment not transferred. Practice offers great scope for practitioner with surgical ability.

ASSISTENTE PLAASVERVANGERS VERLARG ASSISTANTS/LOCUMS REQUIRED

(734) Eastern Province from approximately 1 September for 14 days. Salary, car allowance and boarding to be arranged.

(768) Western Province hospital town. Assistant for minimum period of few months. Preferably Jewish doctor who has recently completed internship. Own car essential. Salary £2 2s. p.d. plus all found.

(771) Cape Town suburb. As soon as possible for approx. 14 days. £2 12s. 6d. p.d.

MEDICAL EQUIPMENT FOR SALE

(758) Electrocardiograph. Sanborne Cardiette. Weight 24 lb. Perfect working condition. Used by Cape Town specialist physician. £160 or nearest offer.

(674) Complete up-to-date set of the British Encyclopaedia of Medical Practice. Any reasonable offer.

(261) Valuable instruments belonging to deceased estate.

CONSULTING ROOMS

(761) Consulting room to let in centre of Cape Town. Waiting room and services to be shared.

JOHANNESBURG

Medical House, 5 Esselen Street. Telephones 44-9134-5, 44-0817
Mediese Huis, Esselenstraat 5. Telephone 44-9134-5, 44-0817

PRAKTYKE TE KOOP : PRACTICES FOR SALE

(Pr S26) Pretoria practice. Present income £2,500 p.a. This is an excellent opportunity for young practitioner. Premium £1,000.

(Pr S29) O.V.S. Uitstekende eenmanspraktyk in dorp met goeie hospitaalaangeleenthede. Medisyne word voorgeskryf. Gemiddelde jaarlikse brutto inkomste £5,183. Een-sesde van inkomste word uit snykunde verkyf. Twee aanstellings op die oomblik aan praktyk verbonde. Betaaling kan gerealiseer word.

ASSISTENTE/PLAASVERVANGERS VERLARG ASSISTANTS/LOCUMS REQUIRED

(A 026) Assistants required immediately for Transvaal country practice. Must be fully bilingual. £75 p.m. plus free house and car expenses. Two appointments held.

(L V122) Johannesburg from 18 December 1951 to 18 January 1952. £2 12s. 6d. p.d. plus all found and petrol and oil paid.

(L V116) Free State. Month of August. £2 12s. 6d. p.d. plus all found and car allowance.

(L V119) S.W.A. immediately for six weeks. £3 3s. p.d. plus all found. 10s. p.d. car depreciation allowance plus free petrol and oil.

(L V107) Transvaal hospital town. 1st October for six weeks. £2 12s. 6d. p.d. plus all found and car allowance.

Wanted

City and Suburban concern requires part-time medical officer to attend to their staff. Apply to 'A. H. R.', P.O. Box 643, Cape Town.

The South African Institute for Medical Research, Johannesburg

The Board of Management of the above Institute has approved of the establishment of Fellowships for a period of three years at a salary of £500, £600, £700 respectively, plus a variable cost-of-living allowance which is at present approximately £192 per annum, during which period the appointees would be trained in all Departments and permitted to take the D.C.P. course subject to a contract that the officer concerned would be prepared to return to the Institute for at least one year after obtaining his degree on the Senior Professional Scale of £1,000 x 100 - £1,400. While attending the full-time D.C.P. course at the University the officer would continue to receive full pay from the Institute. The numbers of appointees is limited to four in any one year.

All appointments will, in the first instance, be for a period of twelve months and reviewed annually, subject to satisfactory progress.

Applications should be addressed to the Director, South African Institute for Medical Research, P.O. Box 1038, Johannesburg.

For Sale

Pelton Sterilizer (practically new). Minnit's Gas Apparatus, Maternity Bag. Sigmoidoscope (new). Set Eye Lenses with rims complete (new). Doctor's bag. Busch Oil Immersion Microscope. Full particulars write: 'Doctor', P.O. Box 1822, Cape Town.

Locum Required

In large hospital town near Kimberley, from 1 April 1952 for a period of 12 months. Salary £75 per month, car and petrol provided for use in practice. Dwelling provided for single person. Applicant must be fully bilingual. Write 'A. H. H.', P.O. Box 643, Cape Town.

HEPVISC

FOR THE RELIEF OF
HYPERTENSION

HEPVISC is a New Hypotensive Agent combining Mannitol Hexanitrate (8mg.) with Viscum Album (50 mg.) in one tablet.

It effectively relieves Hypertension and controls subjective symptoms.

DOSAGE:
TWO TABLETS THREE OR FOUR
TIMES DAILY

Supplied in bottles of 50 tablets

Literature and Samples on request

PHARMACAL PRODUCTS (PTY.) LTD.
P.O. Box 784 • Port Elizabeth

Agents for

THE ANGLO-FRENCH DRUG CO. LTD.,
LONDON W.C.I. C 2388 MW

KRAGTIGE PYNSTILLEENDE MIDDEL



ALKALOIEDVRYE

Pynverdowende en Rumatiekmiddel. Vry van nadelige uitwerking op hart en asemhaling.

Bottels van 25, 100 en 500 tablette (5 grein). Bottels van 1 ons poeier. Dosies van 5 ampules (50 % oplossing, 2 ks.).

NOVALGIN
Handelsmerk

Nou in die Unie van Suid-Afrika vervaardig!

VIR GEWRIG-EN SPIERRUMATIEK, LENDEJIG, HEUPJIG, EN JIG

Dikwels doeltreffend wanneer salisilate faal.

Ook bekend as Novaldin.



Posbus 2461
DURBAN

Posbus 9536
JOHANNESBURG

Posbus 4186
KAAPSTAD

· · · · in place of plasma



Dextran-Benger®

*Dextran-Benger is now used extensively in
the prophylaxis and treatment of shock in place of
plasma and represents a significant
advance in recent research on resuscitation.*

- 1 IT IS STERILE
- 2 IT MAY BE STORED
INDEFINITELY
UNDER ANY
CLIMATIC CONDITIONS
- 3 IT MAY BE USED
IRRESPECTIVE OF BLOOD GROUP
- 4 IT IS FREE FROM THE
COMPLICATIONS INVOLVED
IN THE USE OF PLASMA

* Full literature is available on request from Messrs. British
Chemicals and Biologicals (S.A.) (Pty.) Limited,
259 Commissioner Street, Johannesburg.